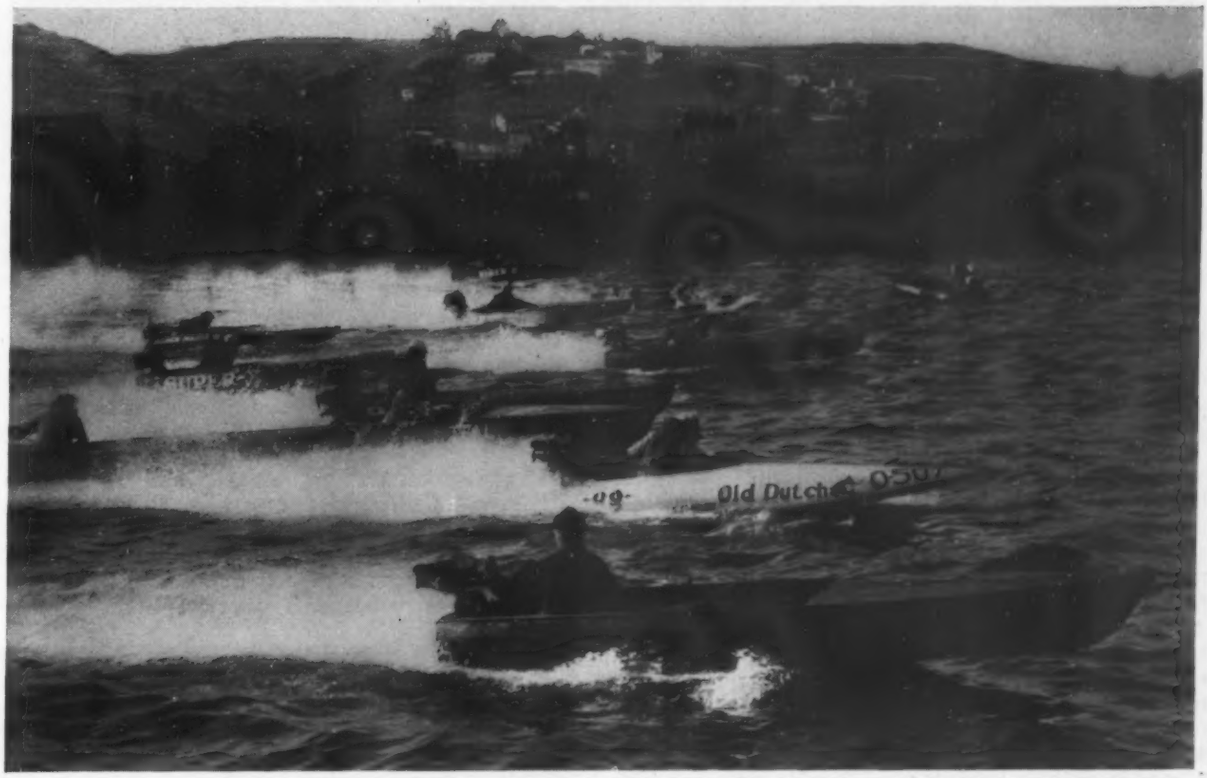
YACHTING

VOLUME XLIII
NUMBER II

FEBRUARY, 1928

35 Cents a Copy
$4.00 a Year



By far the largest fleets at speed boat regattas nowadays are the popular outboards. A close start in Class C at the winter regatta at San Diego. Won by *Mimi*.

The Winter Regatta at San Diego

Fast Time Made in Spite of Unfavorable Weather

By GERALD F. MACMULLEN

MISS SPITFIRE V keeps the Elgin Trophy for another year. The "one-fifty-ones" have broken not only their own records but those of all other hydros up to the 725-inch class, and one of the diminutive racers has come within the shadow of the mile-a-minute mark for an oval course. Thus one might sum up the races for the 151-inch hydroplane championship, held at San Diego, California, on December 10th, 11th and 12th. It started out to be a two days' meet, but old Jupiter Pluvius upset the dope and the event ran three days, the last day being by far the best. In fact, it was the only day on which there was any real racing, from the standpoint of establishing new records.

In the 151-inch unlimited class, *Miss Spitfire V*, owned by Miriam H. Rand, of Buffalo, N. Y., and piloted by Ralph Snoddy, wound up to a speed of 55.42 miles an hour, and verified the predictions of the experts that the new San Diego course would see speeds of 54 miles an hour or better. The old record was 52.02. The new record was made in the fourth heat. In the previous heat *Miss California*, owned by Dick Loynes of Long Beach, and W. O. Harris, of San Bernardino, had hung up a mark of 54.55 — more than two miles over the old mark, which she herself had set. The western boat was piloted by Dick Loynes. Then, in what was to prove the final race of the meet, *Miss California* and *Miss Spitfire V* went at it again. *Miss California* negotiated the first lap at a speed of 59.68 miles an hour — only to develop engine trouble on the back stretch, the second time around, and drop her average for the five miles to 54.29. In the same race *Miss Spitfire V* struck a piece of driftwood and bent her propeller, finally being obliged to accept a tow back to the derrick barge.

Improvements in the course are credited by officials for the better speed made this year. San Diego now boasts of a permanent hydroplane course of standard size — the only one in the country — laid out by the United States Navy, and marked with dolphins set by the lighthouse board and listed on the charts as auxiliary aids to navigation. The course has a maximum error of plus or minus three feet in its two and one-half mile length.

Under the direction of Lieut. Com. W. Mack Angas, U.S.N., who was engineer and chief timer, an elaborate chronograph was installed, which recorded, with two stylus points, the elapsed time and the time of finish of each boat in each heat. To provide for the possibility of failure of this mechanism — which operated perfectly in fair weather and in rain — several sailors, with syn-

Rain and rough water did not bother the skippers of the "outboards," who provided plenty of amusement on the rainy first day of the regatta.

chronized stop-watches, stood by and took the time.

There were no serious accidents to mar the regatta. One runabout, not participating, caught fire and was damaged to some extent before the flames were quenched, and one runabout, while racing, took a curve at such speed that she threw her mechanic clear of the cockpit. The hydros had the troubles peculiar to themselves, in the way of engine failures and the occasional bending or loss of a wheel, but there was nothing serious to mar the event.

On the first day, the rain effectively spoiled things, and only six heats were run — the 151-class limited, 100 horsepower runabouts, 150 horsepower runabouts, Class C outboards and two heats of the Class B outboards. The second day, Sunday, was a little better, with a total of ten heats — 151 unlimited, two heats of 151 limited, 100 horsepower, 150 horsepower and free-for-all runabouts, three heats of C Class outboards, and one of B Class. The outboards, incidentally, did much to provide amusement on the rainy days, as their drivers, generally soaked in any kind of weather, could get no wetter from the rain, and entered into the spirit of the thing with a will. At sunset on Sunday the committee announced that the events would be taken up again the following day — five of the heats in the unlimited and three of the limited.

Monday saw perfect weather, and the best racing of the series. *Angeles I*, owned by Harry A. Miller, of Los Angeles, and piloted by Ralph Snoddy, who proved effective as a two-time driver, started the ball rolling by raising the world's record for the limited class from 47.05 to 47.12 miles an hour. Then came the phenomenal performance of the unlimiteds, and the unfortunate withdrawal of *Miss Westchester* when she stripped a shaft. The fifth heat in the unlimited class has already been described. Just as the sun was sinking all was in readiness for the final spurt. Patiently the officials awaited word from the derrick barge. Then two red-and-yellow flags

Ralph Snoddy, pilot of J. H. Rand's *Miss Spitfire V*, which hung up a record of 55.42 m.p.h. in the 151-Class.

fluttered in the hands of a sailor on the barge. Silence fell as the signal was read, and the signalman on the judge's barge turned to Commander Angas. "*Miss Spitfire* and *Miss California* both out of it with broken valves, sir," he reported.

The officials consulted. It was getting dark; there was no chance for repairs that day. So the last heat was cancelled. Two guns were fired on the judges' barge, and the "course clear" flag was run down and secured. The regatta was over.

Following is the summary of the racing:

Dec. 9th — Weather rainy, noon temperature 53°, maximum wind velocity during races 14 miles per hour. Dec. 10th — Weather clearing, noon temperature 50°, maximum wind 13 m.p.h. Dec. 12th — Weather clear, noon temperature 58°, maximum wind 12 m.p.h.

UNLIMITED 151-CLASS

Boat	*Owner*	*Driver*	*Points*	*Best Speed*
Miss Spitfire V	Miriam H. Rand	Ralph Snoddy	600	55.42
Miss California	Loynes-Harris	Dick Loynes	500	54.55
Sparrow	E. H. Johnson	E. H. Johnson	300	49.34
Miss Westchester II	E. W. Hammond	E. W. Hammond	100	50.29

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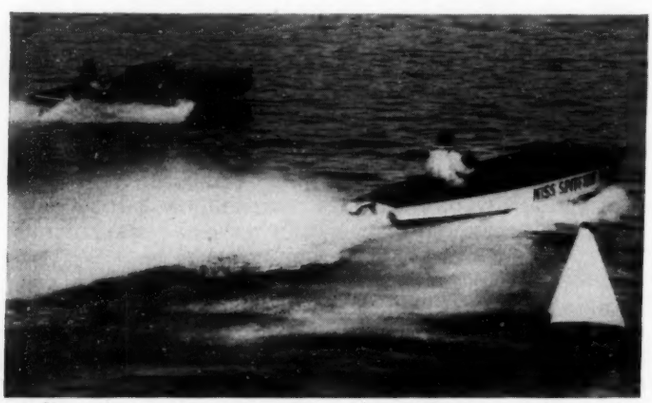
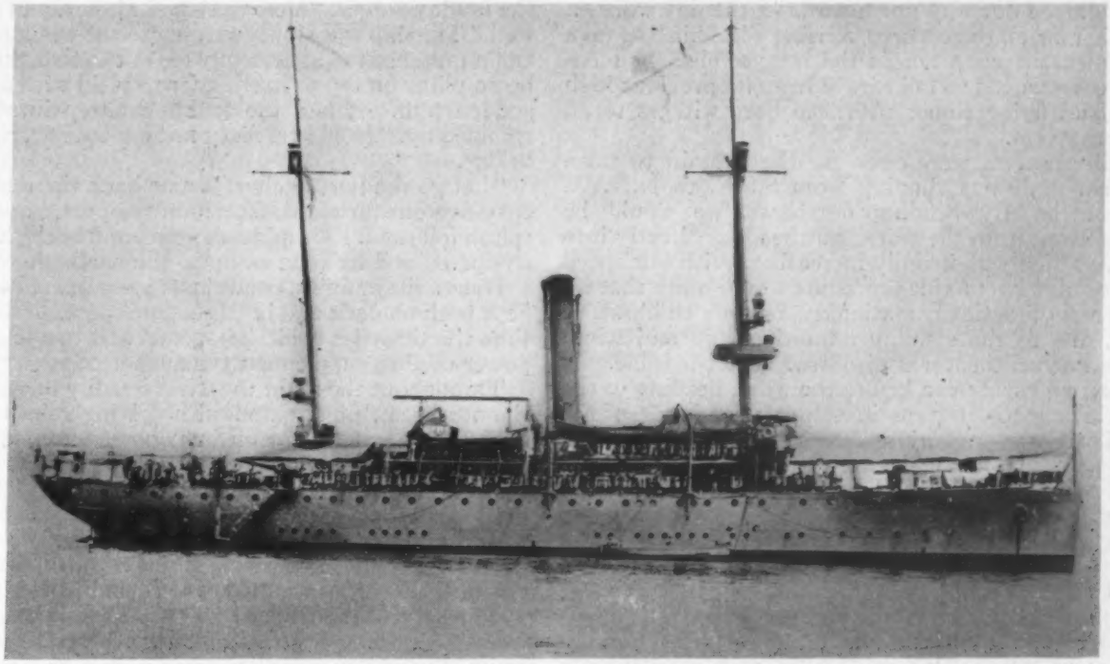


Two keen rivals, *Miss Spitfire V* and *Miss California*, starting in the final heat of the 151-Class.



The U. S. S. *Asheville*, affectionately known as the "Galloping Goose of the China Coast," or as the "Jam Factory."

Breaking a Date With Saint Peter

Riding Out a Typhoon at Port Namki in the U.S.S. "Asheville"

By Arthur T. Emerson
Lieut. Commander, U. S. N.

ON the morning of Thursday, August 12th, 1926, the U.S.S. *Asheville*, otherwise more or less affectionately known as the "Ash-Maru," "Jam Factory," or "Galloping Goose of the China Coast," lay at anchor in the muddy, swirling currents of the harbor of Swatow, South China, under the torrid rays of the tropic sun. The heat was made all the more intense by the fact that the awnings were furled as part of the preparations for getting underway. We were to sail for Shanghai upon the arrival of a destroyer to take over the arduous duties which we had been performing for six weeks past, of furnishing protection, moral support, and American movies for the American and European residents of that strike-ridden port.

Shanghai — a magic name. To most of us it meant our families, hotels, clubs, and civilization again. To me it meant all that and more — the conclusion of a two-year cruise in the Orient, and transportation "home," that wonderful word with all its attraction to the wanderer in far countries.

Just before noon, a lean gray shape slid quietly through the narrow harbor entrance, and some minutes later dropped anchor just below us. A sigh of relief arose from all hands. The "expect to arrive at such and such a time" radios from detroyers are notoriously unreliable, and a few hours' delay in her arrival meant that we would lose the high tide over the harbor bar, delaying our leaving until the next day, which was Friday, the 13th; and what sailorman ever wishes to sail on a Friday, especially such a Friday?

Early in the afternoon the last of the stinking Chinese mud was washed from the anchor, and we headed downstream, over the bar with three feet to spare, and soon were plodding merrily up the coast, rolling easily in the swells left by the last typhoon. The sea watch was set, and all was well with the world.

The *Asheville* is a pretty little craft of 1,600 tons displacement, 260 feet long, and 14 feet draft, but her towering masts and tremendously high funnel (whence the cognomen "Jam Factory") give her a curiously foreshortened appearance. Her most serious drawback, and a nearly fatal one, as it later proved, was her low engine power of only 800 h.p., which under the most favorable conditions gave us a speed of ten knots. Now, however, with a foul bottom, moderate sea, and adverse current, we did well to make eight.

In the afternoon the radio messenger brought to the bridge copies of the daily weather broadcasts from Manila and Shanghai, which are of great interest to all mariners in China seas during the typhoon season. Sure enough, "Typhoon approaching Balintang Channel, latitude 20° N, longitude 124° E, at 8 A.M., moving northwest."

As during the past ten days we had ridden out two small and moderate typhoons in Swatow without any especial discomfort, and furthermore as this one bade fair to pass inland astern of us, after crossing the Formosa Channel, up which we were now steaming, no great cause for worry was seen. Nevertheless, its various positions were plotted as they were received, and a careful watch kept on conditions in general.

Saturday forenoon it could be seen that the typhoon track was going to come uncomfortably close to us, as we

slowly walloped our way northward. As the day wore on the weather began to get dirty, a rising wind kicking up a most unpleasant chop across the long swells. The barometer commenced to fall slowly from its previous high reading, and flying clouds overhead bore witness to an impending storm.

Two alternatives were open for the captain to take. The storm path was running from S.S.E. to N.N.W., approximately. By heading northeast, we would be steaming away from the track, but heading directly into the wind, which was steadily increasing. With our speed of eight or nine knots, this procedure would mean that we would remain practically stationary, or even be blown to leeward, due to the steadily mounting seas and wind. This alternative, then, was dismissed as not feasible.

The second was to run before the wind, heading to the S.W., which would put us in the safe semicircle of the storm. There was one serious drawback to this, however, in that we would be deliberately running into the reef-infested and incompletely charted Chinese coast, which was only 40 or 50 miles distant, with many outlying rocks and islets. Result: second alternative dismissed also. Problem — what do?

The China Coast Pilot and sailing directions finally came to our relief. Contained therein was a little paragraph tacked on, perhaps, as an afterthought. It read in substance as follows: "Port Namki is an excellent typhoon anchorage."

We were at this time only 12 miles to the S.E. of Namki. The tumbling ragged seas, slowly rising wind, and dirty look of things in general soon decided the captain to take Hobson's choice, and we changed course to port, planning to anchor in the strange harbor, and ride it out.

The next two hours were busy ones, as the men hustled cheerily about, securing all the boats and deck gear, passing extra lashings, and carefully inspecting the old ones to make sure that all was ready for the test to come. Just as the now obscured sun was about to set, the word was passed, "All hands bring ship to anchor. Leadsmen in both chains," and we slowed down to enter the narrow mouth of the horseshoe shaped bay, formed by three large and a dozen smaller bare grey rocky islands. The largest was three to four miles long, and the width of the harbor about the same. The entrance lay to the eastward, the other channels between the islands being narrow, tortuous and unnavigable for anything but small junks or sampans. Everywhere were walls of jagged rock, rising perpendicularly from the water from 20 to 100 or more feet, the highest point in the islands being over 700 feet above the sea. A short stretch of sandy beach presented a slight relief to the eye, but even that had a sentinel rock barring it from easy access. A dozen or so stone hovels scattered along a hillside represented the city of Namki. The great grey-backed swells, spattered with foam by the rising cross sea, and dashing themselves 20 feet high against the ledges in a last mad rush, did not add in the least to the cheerfulness of the scene, while the sombre gloom of the storm, intensified by the fast approaching dusk, cast a damper on conversation. The silence was punctuated by the voices of the leadsmen, as alternately they sang out the depth from their surging platforms on each bow: "No-o-o bottom at twelve." "No-oo bottom at fourteen."

"Getting deeper," remarked the boatswain's mate to no one in particular, uttering the time-honored quip.

"By the mark — ten," came the shout, just as we were passing through the jaws of the harbor, and rolled slowly onward. Then nine, eight, and seven fathoms.

"Stand by the starboard anchor," and all hands on the forecastle jumped to their stations. "Let go," and with a roar and a splash the 5000 pounds of iron went down in the muddy surges. "Veer to sixty fathoms, and lay it out well." The ship was slowly surging to the wind, and as the chain tautened it was carefully fed out so that there would be no piling on top of itself, later to yield with a jerk at a sudden puff. At last the fourth white-painted shackle rumbled by. "Hold her! Sixty fathom outside, sir," to the bridge.

"Let go the port anchor," came back the reply. "Seventy-five on starboard, fifteen on the port," and another splash followed. Five minutes more, and both chains were stoppered and we rode easily to the wind.

Due to the ominous conditions, a regular sea watch was kept both on deck and in the engine room, so that at any time the throttles could be opened and our scant engine power used to supplement the anchor gear.

Throughout the night the wind steadily increased from the northeast, punctuated with driving rain squalls. At 3:45 A.M., a rat tat-tat on my door awakened me. The messenger's voice answered my sleepy grunt, "Quarter to four, sir, and better wear your rain clothes." A cheerful message, but only what I had expected.

Ten minutes later I climbed to the bridge, and after relieving the officer of the deck settled down to await the dawn. The barometer had been steadily falling as the wind rose, and though we rode to the wind the long swells from the eastward, now larger than before, were on our beam, causing us to roll heavily, with a sudden sidewise jerk on the cables as each passed under us. Then blackness again, until another white spot appeared, quickly growing into a rushing line of foam a mile long bearing down on us with the speed of an express train. A slow lurching wallow into the trough, while the crest hung even with our bridge, then the sudden buoyant rise as the huge billow passed under us, and a sudden shudder of the ship's frame as the heavy cables tautened with the sudden impetus. Then peace for a few minutes, while we wondered how long it would last. To leeward, through the darkness, could be seen the burst of spray on the rocks, but the land itself was still invisible. Every 15 minutes the quartermaster read the barometer, now falling faster, while the intermittent rain squalls came more frequently and furiously.

At last a faint lightening of the eastern sky gave notice of the approaching dawn, and in half an hour we could see clearly the grim grandeur of the whole scene. The gale, now blowing with a force of eight to ten Beaufort (50 to 65 miles an hour), was tearing the crests of the waves away in huge sheets of spray, and driving them to leeward until they blended into the fountains of spray against the cliffs.

A rapid round of compass bearings showed that at least we had not dragged during the night. Thank heavens for those 5000 pound bowers, heavy enough for a ship twice our size. Coming under me, as first lieutenant, they had always been my pride and boast, and now they seemed to be amply fulfilling our hopes, despite the battering we had received during the last twelve hours.

"How about a cup of Jamoki, sir?" I turned to see the red-headed messenger grinning as he held out a mess bowl of hot coffee, fresh from the galley. I crouched behind the bridge screen to drink it thankfully while the driving rain beat a tattoo on my canvas shelter. Then a soggy cigarette, and somehow the world looked a little brighter.

It was now full daylight, but pale and cheerless. The seas continued to pile into the harbor, while the barometer continued its steady fall and the rain drove in our faces like needles. Then a cheery voice behind me, "Well, how's she coming?"

"Getting no better fast, captain," I replied, turning, and for a few minutes we discussed the storm. The radio reports only confirmed the law of storms, and the un-

changing direction of the wind showed that we were dead in the path of the storm center. The only question now was how fast the center was traveling, and how severe it would be.

At 7:42 the strain on the cables became so great that I put the engine room telegraph over to "One-third ahead" to take some of the tension from our groaning anchor gear. The main difference between our "Stop" and "One-third ahead" was that in the latter case the propeller turned over, but nevertheless it seemed to help.

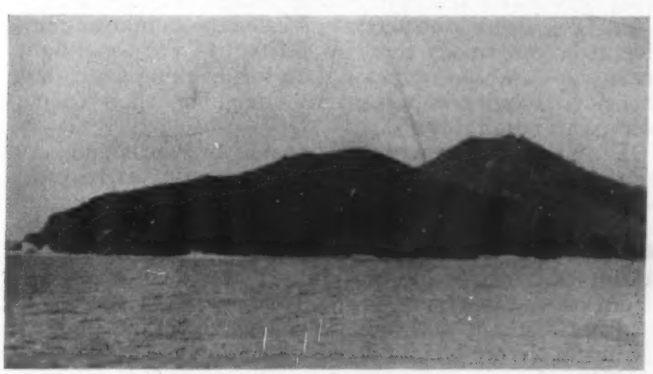
Ten minutes later my relief had taken over the deck, and I could drain the water out of my boots before sitting down to breakfast. The younger members of the mess were already giving the paymaster, who was also mess caterer, the usual growl as to the antiquity of their matutinal hen fruit.

"Say, Pay, the Chinks always keep their eggs for at least 50 years before they get the right flavor. These of mine are only 49."

"Well, if you don't like them, go ashore and get your breakfast," came back the mild reply. "The pirates have a fine hotel over there. Special rates for children, too."

My breakfast was hardly over before the thundering rush of chain across the forecastle over our heads announced that we were veering chain. With 115 fathoms on the starboard anchor and 90 to port we rode more easily for a while, but the ever-increasing violence of the wind and seas soon had the engines going full speed to hold our own. Still the aneroid fell, below 29 inches now, while the hurricane screamed fiendishly through the rigging. Except for an occasional glimpse the rocky cliffs astern were obscured altogether by the flying spume and rain. That was a little comfort, for the sight of those grinning fangs of jagged granite waiting for their prey was enough to make strange little tremors ripple under the belt buckles of the stoutest hearted. As many said afterward, "I didn't mind being drowned, but I sure hated to be hamburgered first."

Just at this stage the clanging of the general alarm gongs and the shrilling of the siren sent all hands' pulse-



The rocky shore of Port Namki, where we nearly came to grief in the typhoon, as it looked when we steamed out.

beats up another notch. "Close all watertight doors. All hands put on life-jackets and remain within reach of the topsides." She was dragging anchor.

After a hasty word with the captain and executive on the bridge, I ran aft, gathering men as I went. We had a 3,000 pound stream anchor lashed on our quarterdeck for use over the stern. The problem was to get this forward over that slippery, lurching deck, with nothing to handle it with except our hands and teeth — the hands for the anchor and the teeth for ourselves. Every man knew, however, that the safety of the ship and the 200 souls aboard most probably depended on the speed with which our last hope could be gotten forward and over the bows.

Five minutes, and she was out of the chocks. A hundred willing hands, seamen, firemen, and marines, tailed on to the long fall led forward, while a dozen men on each side clung desperately to steadying lines. A series of vain tugs, then as the deck pitched forward into a sea, away went the huge chunk of pig iron with a mad rush, only to be checked by a turn of the snubbing line hastily thrown around a stanchion. Then a nasty side roll skidded it across the planks, the men to leeward jumping to avoid it. Thus, inch by inch, it was wormed forward, while down the wind came the shrill quavering "hee-haw" song of the Chinese coolie, raised by some of the more irrepressible youngsters.

Finally we had it safely on the forecastle, an inch and three-quarter wire towing hawser shackled on, and backed

The same shore as we entered Port Namki the evening of the typhoon.

by a 750 lbs. kedge anchor. Another heartbreaking struggle with bars and brute force, and the whole mass was pitched into the seething muddy seas, carrying a few lifelines with it on the last plunge. Then, just for good luck, our last anchor, a 400 lb. kedge, was bent to another wire and heaved over the port bow. All hands breathed a sigh of relief and scuttled from the streaming forecastle. I put my hand on the chain cables, stretched taut as fiddle strings, but the telltale, ominous quiver that warned us of the dragging anchors had stopped. A gesture of satisfaction to the anxious faces peering over the bridge screen, and a spontaneous smile came to all.

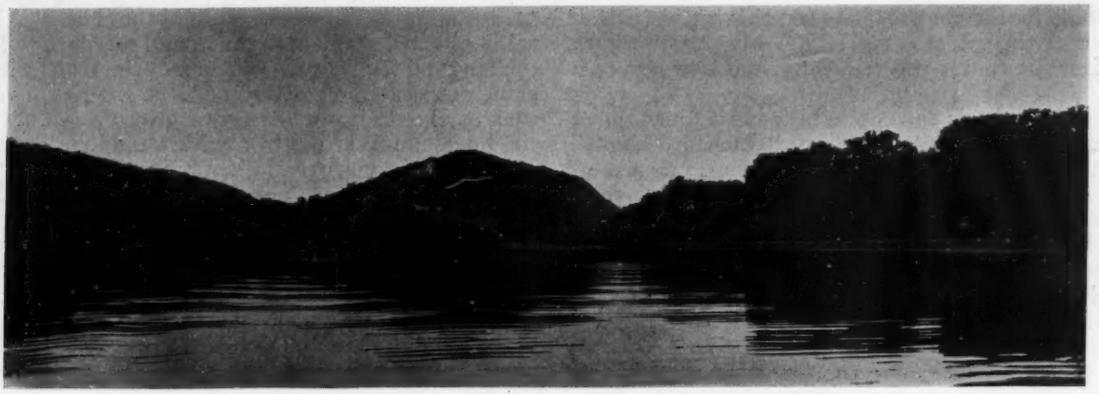
I then followed the men in a dive for the shelter of the captain's cabin, located in the deck house under the bridge. Here in the lee were huddled 30 or 40 dripping men, and our doctor, paymaster and other non-combatants, trying to find a little shelter from the raging elements, and also the cold, for the temperature had fallen sharply, chilling us considerably in our drenched cotton clothing. The paymaster and his clerk monopolized the doorway to the captain's pantry, clutching between them their leather money bag, with rope and buoy attached according to Hoyle, while behind them peered out the brown faces of our Filipino mess boys. In the extreme rear squatted Acey, the captain's Chino boy, flemished down under the sink.

"Well, Doc, how would you like to be in Swatow now?" queried one. "Swatow, Hell, I want to be in Ioway," came back the medico's reply.

A little relief to tense nerves was afforded when a sailor dashed up, looking for a piece of line for a lashing. Spying the paymaster's brand new length of manila, he snatched it, and was ten feet off before brought up by our financial expert's desperate yanking at the other end in a successful attempt to save the cash.

This gave the wisecrackers another opening, and remarks concerning the desperateness of Chinese pirates, the utter worthlessness of money in Davy Jones' abode,

(*Continued on page 106*)



The upper Mississippi, on the way from Red Wing to Lake Pepin.

Down the Mississippi in the *Minnemo*

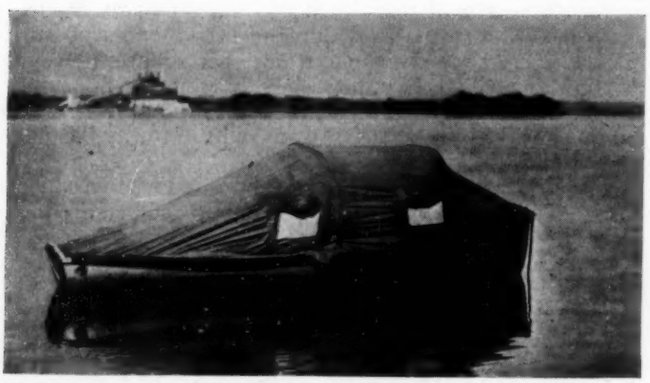
A Delightful Seven-Day Cruise on the Upper Mississippi in an Outboard Boat

By Louis Ruthenburg

STORIES of magnificent scenery, tales of marvelous fishing and hunting grounds, and yarns about river transportation had for years aroused and stimulated my interest in the upper Mississippi. I had managed to sell the idea of a boat trip for two to the mate, and as August advanced our plans were completed and the good skiff *Minnemo* was fully equipped. Having shipped the skiff and the heavy equipment to Minneapolis, we set forth Saturday evening, August 21st, by train for the starting point of our down-river pilgrimage.

Our original plan had been to truck the *Minnemo* to a point below St. Paul, but upon the advice of friends we decided to launch our boat at Minneapolis and go through the lock at the Ford dam. On Monday, August 23rd, the loading and launching were accomplished.

Here I shall pause long enough to describe briefly the *Minnemo* and her equipment. *Minnemo* is a 14-foot Mullins steel skiff. She is fairly broad of beam and transom, admirably adapted to outboard motor propulsion and for carrying a load of camping equipment. The power plant is a Super Elto which kicks her along at a seven-mile gait. A 10-gallon fuel tank is fitted under the rear 'thwartship seat and a hand pump is operated occasionally to transfer fuel from this tank to the engine tank, through a flexible tube. There is a space just six feet long from the rear edge of the bow seat to the rear edge of the rear seat. Two sets of ash slats notched into the seat edges support an air mattress and form a comfortable bed. A forward awning of light duck is supported by two wooden bows which slide forward upon brass rails after the manner of a collapsible spray hood. This covers *Minnemo* forward. Another canvas, which is carried folded, snaps to the rear bow and covers the stern. Two mosquito barred windows, covered with canvas flaps which can be raised and lowered from within, are fitted in each side of both the forward hood and the rear canvas. Detailed fastenings are so arranged that mosquitos and similar varmints must stay outside. A Barclay portable ice box fits across the bow seat quite nicely. A mushroom anchor is attached to the bow by a stout cable. Open links and an extra length of chain are carried to provide a long bow mooring when it may be wanted. A length of heavy sash cord is used for a stern line. There is no need to describe the camping equipment, except to say that, in addition to the usual light camping outfit, a large container for drinking water was considered quite important. A one-gallon thermos jug served us admirably.



Sleeping quarters on the *Minnemo*. The canvas hood kept us dry and comfortable.

With the exception of the bare skiff and the engine, the outfit had not been used before this down-river trip was started, and I anticipated many difficulties of a minor nature. It developed that these were few and negligible. The prompt firing of the little motor vindicated Ole Evinrude's claim for easy starting, and away we paddled toward the Ford dam, a few miles down stream.

From the canyon through which the river flows beneath Minneapolis we had an excellent view of the several fine bridges which connect the east and west bluffs and afford communication between Minneapolis and St. Paul. Soon after leaving our starting point, the new concrete bridge which is being built just above the Ford dam was sighted. A section of the temporary floating bridge was opened for us and we passed through to the great lock. Here a long wait followed as boats go through the lock on schedule. Finally the lock was filled, the upper gate opened, and we were in. In a few minutes the lock was emptied, carrying us down some 30 feet to the lower level; the lower gates were opened and we proceeded to follow the winding, dirty, odorous creek that eventually becomes the great Mississippi.

Soon the skyline of St. Paul was sighted. Again we ran through a canyon beneath many bridges. A power boat club was seen on the west bank. As we cleared the bridges

The skyline of St. Paul.

Lake Pepin is a treacherous sea.

and came opposite the great railroad yards on the east bank, a light breeze carried the smoke of many locomotives over the water. The sun had long since sunk below the western hills and the going was quite thick. I saw a black and white channel buoy dead ahead and steered a course so as to pass it just off the starboard bow. But the buoy was on an abrupt "crossing" and I had failed to see the crossing mark on the east bank. Seeing broken water ahead, I slowed the engine down to half speed and tried to get around the end of the rock ledge, but too late! We felt the propeller strike. As we ran over into deep water the engine continued to run and I was about to congratulate myself because I had not sheared the propeller pin when our power plant ceased abruptly to function. I turned her over and found the mechanism quite free through a half revolution, but binding hard on the other side. "A bent shaft," thought I, and manned the oars to pull back toward St. Paul where a shop and repair parts were available.

Rowing the heavily loaded skiff back against the stiff current of that stinking stream, while I entertained a vision of hours of delay, was the most unpleasant experience of the entire trip. The evening was hot. Scarcely a breath of air stirred. Every inhalation was a mixture of locomotive smoke and sewer-stench.

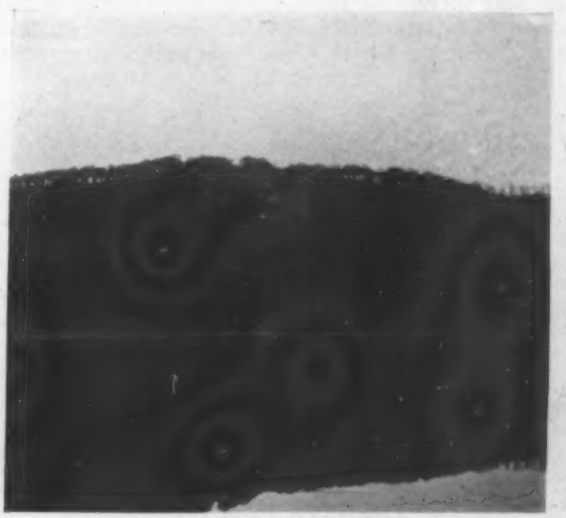
My plan was to row up to the power boat club, there examine the engine carefully and, if extensive repairs were needed, to load the engine and our bags in a car, spend the night in St. Paul and effect repairs as early as possible in the morning. The mate, however, after I had tugged at the oars for what seemed a long, long time, persuaded me to land on the west bank and look for a spot to camp. We landed, a fire was kindled and soon we were enjoying bacon and eggs and hot coffee. The bed in the skiff was prepared and the top was raised and secured for the night. The mate slept soundly and I rather fitfully. Early in the morning — long before daybreak — a speed boat passed us, evidently bound down-river for a fishing trip. His propeller stirred up the waters. Ye Gods, what a smell! I watched him take the crossing which had brought us to grief, resolving never again to attempt running a strange channel in the dark.

We were up at sunrise. While the mate cooked breakfast, I looked over the engine. The pin had sheared, but instead of releasing the propeller and allowing the engine to race, the shearing of the pin had caused the nut on the propeller shaft to run upon its thread, jamming the propeller against the gear housing and so binding the whole mechanism. Thanking my lucky stars that the trouble was no more serious, I quickly knocked out the sheared pin, replaced it with a new one and in a little while we resumed our journey.

The morning passed uneventfully. We were virtually alone on the stream. A few miles above Hastings, Minnesota, we met a small canoe with a camping outfit in the bow. A very sunburned young fellow attired in an athletic undershirt and duck breeches was paddling up against the current. Just above Hastings we met a small scow loaded with barrels. A launch towed this outfit up stream. Rounding a sharp bend which took us eastward, we passed the town of Hastings and a little further down we saw our objective — the village of Prescott, Wisconsin, which lies on the east bank of the Mississippi, at the foot of Lake St. Croix.

We took on gas and drinking water, supplied ourselves with minnows, and, swinging around the edge of town and under the railroad bridge, we were out of the Mississippi and on our way up Lake St. Croix. What a delightful contrast was here afforded! Clear, sparkling waters, pure as the springs which gave them birth. A beautiful stretch of lake a mile or so wide, guarded by hills that reached off north as far as the eye could follow. A few miles above Prescott we decided to camp on a sandy stretch of beach which reached out of a shaded coulee. Putting our engine and some of the heavier equipment ashore, we proceeded to troll, trying various artificial baits as the fish failed to strike our minnows. No luck! As the sun began to drop behind the hills, our camp fire was lighted and, having disposed of a delicious, hot dinner, we sat about for a little time in the moonlight and then, beneath the canvas and upon the air mattress, we were soon fast asleep.

Arising with the sun, we decided after breakfast to return to Prescott and engage a guide who understood the ways of the wall-eyed. Equipment was soon stowed, the little engine barked merrily and, crossing the lake, we swung down toward Prescott and were soon tied up at a friendly boat livery. Here the mate began to encounter misfortune. As she threw a canvas forward to get at something under the seat, I heard a splintering sound and realized that a split bamboo rod was out of business. A few



At the entrance of Lake Pepin.

The *Minnemo* in cruising trim.

minutes later she told me in a discouraged tone that she had punctured the air mattress. But these were small matters. A cheap steel rod was purchased at the local hardware store and a boy in the garage was set to work patching the mattress.

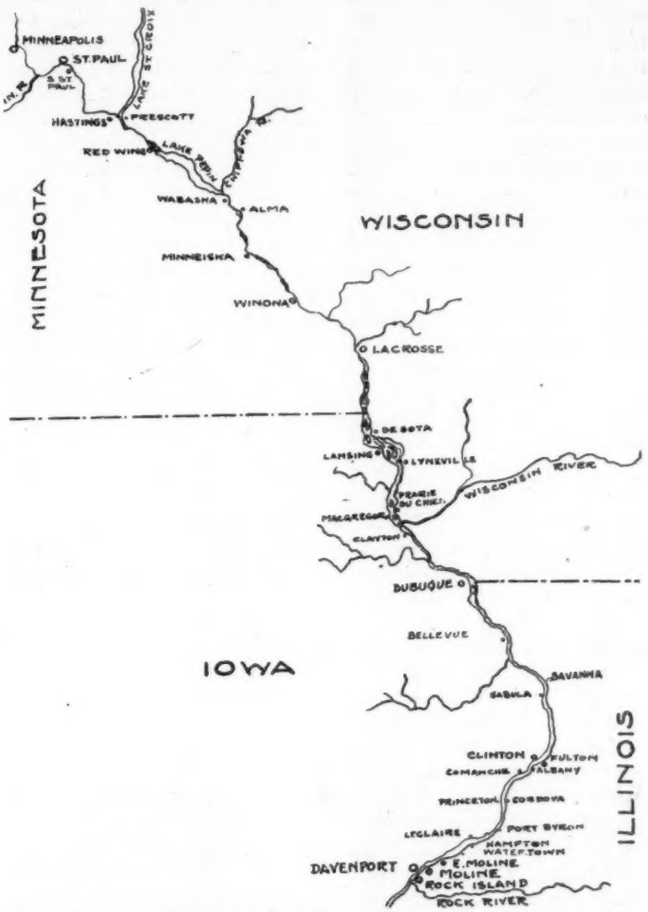
When I returned to the boat I found that the mate had discovered a guide — the best fisherman in Prescott, we were told. He had never been known to come in without fish. In fact, if he didn't catch fish, his services wouldn't cost us a dime. So we engaged this quiet, curly headed youth. As soon as we began to rig our lines I began to learn things. I shall not betray their secrets but, when you fish near Prescott, by all means engage a guide! They know more than the fish! We fished in the Mississippi, on the St. Croix side of the channel. We had not been away from the boathouse ten minutes when our guide landed a nice wall-eyed. Then the mate landed a beauty. We fished until about 4 o'clock and took in a string of five nice fish.

Loading the repaired mattress and having put our fish on ice, we swung away down stream. I found it quite simple to clean our fish as we ran and I was right merrily decapitating fish and removing their scales when, a mile or so below Prescott, I discovered that the minnow bucket was missing. We had left it at the boathouse. Darkness was rapidly overtaking us, but we turned about and ran back up to Prescott, retrieved the bucket and then started down stream again to find a camping place.

The east bank of the river just below Prescott is a railway enbankment; the west shore is a mass of low islands, sloughs and wing dams. Having no desire to run an unknown channel after dark, I proposed that we cook dinner on a high wing dam extending out of a thickly wooded island, and anchor for the night in the quiet pool above the dam. The mate didn't like this plan at all but, as she did not know of a "better 'ole," we pulled in above the dam, unloaded the cooking kit and the food and soon had a fire blazing merrily under the grid.

We had planned to go through Lake Pepin to Wabasha on the following day, Thursday, and breakfast had been prepared so that it could be eaten in the boat as we ran downstream — a plan followed for the remainder of our trip.

From the camp below Prescott through Lake Pepin we found the water almost stagnant. Great masses of small, floating water plants covered the surface, in many places unbroken for thousands of square feet. The water from the St. Croix adds much volume to the stream. Pepin is a treacherous sea and natives tell harrowing tales of disaster on its waters. Winds sweep down over the surrounding hills and in an unbelievably short time the shallow



Map of the upper Mississippi; from Minneapolis to Rock Island.

Camping at the edge of Lake St. Croix.

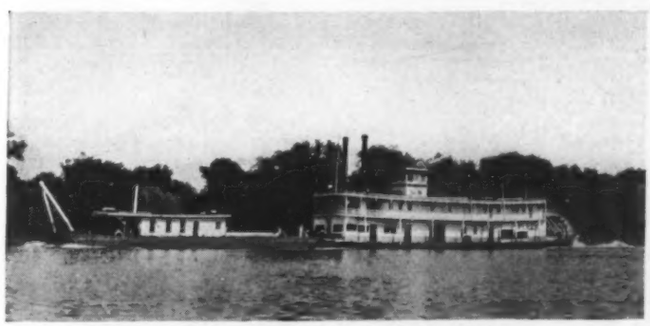
waters are whipped into wild waves, but on this beautiful summer day we were propelled pleasantly down the river by our friendly little outboard motor.

Just before we reached the lake our craft moved sluggishly and steering became erratic. Upon tilting the engine I found that we had picked up a great cluster of water weeds. Although I removed a mass of grass and weeds from the forward side of the vertical aluminum housing that would have filled a half-bushel basket, it was a pleasant surprise to find that the propeller had not fouled. Tilting the power plant freed the entire mass and permitted it to float away behind us.

As we approached the lake a crossing sign and two buoys marked the entering channel. For 30 miles ahead of us lay an expanse of water varying in width from one to more than five miles. Only an occasional sign of human habitation marked the shores. Great rocky hills rose from both

The village of Trempeauleau nestles between towering bluffs and rippling water.

shores to a height of several hundred feet. Ahead of the boat, large fish flipped through the water's surface. At first the waters were stagnant and we paddled through great areas of floating algae. Seeing no navigation marks, we shaped our course for a headland which lay a few miles below and off our starboard bow. The heat became oppressive and the gentle, following breeze which sprang up made matters worse because it blew at just our traveling speed and cheated us of the air current which normally resulted from our forward progress. Half way down the lake a great sand bar extends across from the western hills and forms a narrow channel into the lower lake which is filled with stakes for supporting trap nets. We proceeded past the second great sand bar which lies to the east between the lower end of the lake and the mouth of the Chippewa River. As we passed through the foot of the lake the water assumed a new color — a light, translucent chocolate shade. This coloring increased as we approached the Chippewa, which was pouring an enormous volume of flood water into the Mississippi. The Chippewa flood was bringing down a great deal of sandy Wisconsin soil which



A government boat in the Winnesheik.

gave to the water this peculiar coloring, indications of which persisted for over 200 miles down stream. Passing under the narrow span of a bridge, we sighted the town of Wabasha, the first town of any size below Red Wing. The current was whirling past at a merry clip below Wabasha. We made a leisurely, early camp and enjoyed eating half of our biggest wall-eye. After several "last pipes," we again slept in the *Minnemo*, snuggled down at anchorage in the mouth of the slough above a wing dam.

In the morning we were up with the sun and off. Just as the 7 o'clock whistle on a water front factory blew a great blast, we passed Alma, Wisconsin. Beyond the river channel miles of low, thickly wooded islands, interlaced with innumerable sloughs, intervene before the opposite glacial hills. These wide bottoms and towering hills are characteristic of the river from the lower end of Lake Pepin to Dubuque, Iowa. Among the islands the navigable channel, dotted with buoys, marked by frequent crossing signs, restrained by miles of levee and guided by frequent jetties or wing dams, writhes like a gigantic, tortured serpent from bluff to opposite bluff, and back again. The bluffs lie to the north and south of the valley as frequently as they lie east and west. From Minneapolis to LaCrosse the general course of the stream runs east more than south. From LaCrosse to a point below Prairie du Chien the general course is southerly. Then again the stream sweeps east by south to Savanna, Illinois, thence due south to Clinton, Iowa, where, reversing all previous tendencies, it turns west through the Tri-Cities (Davenport, Rock Island and Moline). These are the general tendencies of the broad valley through which the channel flows. As the navigable channel leads from side to side of the valley, and as a craft follows abrupt crossings from side to side of this same channel, a boat's course upon the upper Mississippi is indeed a tortuous one, and long.

The construction of the levees and wing dams with the necessary dredging operations to form this shifting, tortuous, shallow channel has been a titanic task and the maintenance of the channel is scarcely a less formidable undertaking. Channel buoys must be planted each spring, removed each fall, retrieved and replaced as flood waters shift them and relocated as new sand bars form over night. Hundreds of crossing signs must be kept in repair and, always, they must be cleanly painted; else they fail to show. Constantly burning lights must be maintained on many of the buoys and at critical crossings the markers on shore are illuminated. New jetties are being constructed whenever weather and water permit.

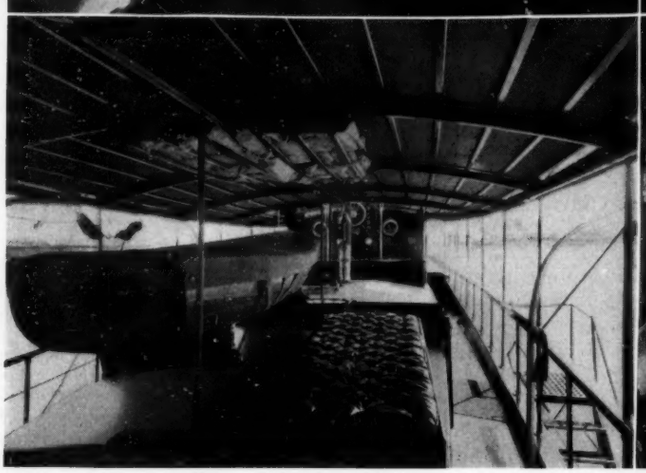
As we left our camp above Alma, the air was quite chilly and heavy coats were not uncomfortable. Below Alma, the channel, restrained by levees, crossed the valley to the Minnesota bluffs. A fresh breeze blowing up channel from the southeast ruffled the water and, in the longer stretches exposed to the breeze, whitecaps began to appear. The *Minnemo* danced about a bit but ran quite dry. Shortly after 10 o'clock the bridge at Winona was in sight. Below the bridge a neat boat livery invited us and we effected a businesslike landing. Here was the best equipped boat livery we had seen. The owner was interested in our outfit, as he sold Mullins boats and outboard engines. Incidentally, outboard engines enjoy great popularity in these

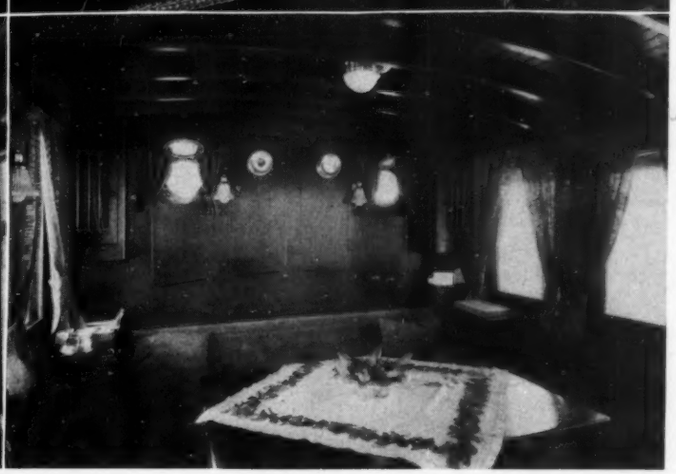
(*Continued on page 100*)

The mate goes fishing.

Priscilla, a 60-Footer Which Will Fly the Pennant of the Vice-Commodore of the Chicago Yacht Club

The 60-foot fast power cruiser owned by A. E. Bendelari, Vice-Commodore of the Chicago Yacht Club.





Designed by Henry C. Grebe & Co., and built in Chicago by the Great Lakes Boat Building Corporation, *Priscilla* is well arranged for a boat of this type, having two double staterooms and a bathroom in the owner's quarters, a deck dining saloon, forward of which is the galley, and then the crews' quarters with accommodations for three men. The engine room is under the deckhouse and extends to and under the navigating bridge, and has full headroom in the after end. Her after deck is ten feet long and comfortably furnished in wicker.

For power, she has two six-cylinder Sterling-Chevron motors which give her a speed up to 15 miles per hour. The navigating bridge, to which all the controls from the engine room lead, is just abaft the deckhouse and has a slanting windshield. This is an attractive feature, as it keeps the crew away from the owner's party. She is beautifully finished, all her exterior bright work being mahogany and her decks of white pine, finished bright.

The Search for Ship Timber

In this day, when good yacht timber is growing rapidly scarcer and more expensive, on account of the difficulties encountered in the past in getting suitable oak and other woods, is timely

By ROBERT G. ALBION

Engravings from Elemens de l'Architecture Naval, 1758

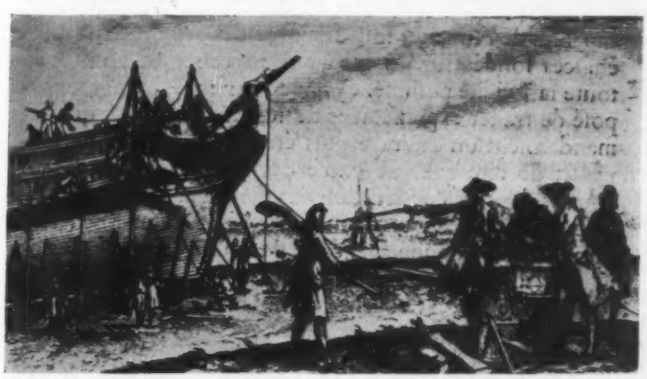
Building a warship in an 18th century navy yard. Pieces of ship timber being worked down by hand are shown.

THE yachtsman who specifies oak or cedar for the hull of his new craft seldom realizes that centuries of experimentation have led to the choice of favorite ship timbers. The whole story is an interesting one. Thousands of ships have foundered or decayed speedily due to the use of timbers not suitable for ship building, while those most in use today have stood the test in tens of thousands of other vessels.

That quest for the right ship timber was a very important problem in the old British Navy, perhaps the most successful organization on the seas. In those days of wooden ships and iron men, the supply of timber for the King's ships was so important that it kept admirals, diplomats and colonial governors busy, while the naval constructors often spent sleepless nights wondering where they could get enough wood of the right kind.

It was a good tree that could pass the rigid requirements of the shipbuilders. It had to be strong enough, and it had to grow in the proper form to produce the queer shapes demanded by naval architecture. Finally — and this was the most baffling question of all — it had to resist dry rot, that insidious fungus which sometimes pulverized a whole hull before the ship had completed her maiden voyage.

The anatomy of a ship called for wood of many sizes and shapes. For the "backbone" of the largest ships of the line, there had to be keel pieces some 20 inches square, stem pieces of peculiar curvature, and, most difficult of all to secure, sternposts 40 feet long from trees more than two feet in diameter. Across this backbone were some 40 frames or "ribs" with their own special demands for curved futtocks, floor pieces and top pieces, especially when the fashion called for the old bulging hulls. The scarcity of those crooked pieces of oak, as a matter of fact, led to the straight sides of the modern craft. Then there had to be long, strong beams, while younger, more supple trees were used to furnish the planking and flooring for the decks. Altogether, a man-of-war of the largest type required some 3000 trees for her hull; a frigate consumed half that number, while even an ordinary merchantman used five or six hundred. All this was apart from the question of masts and spars, an entirely separate problem.

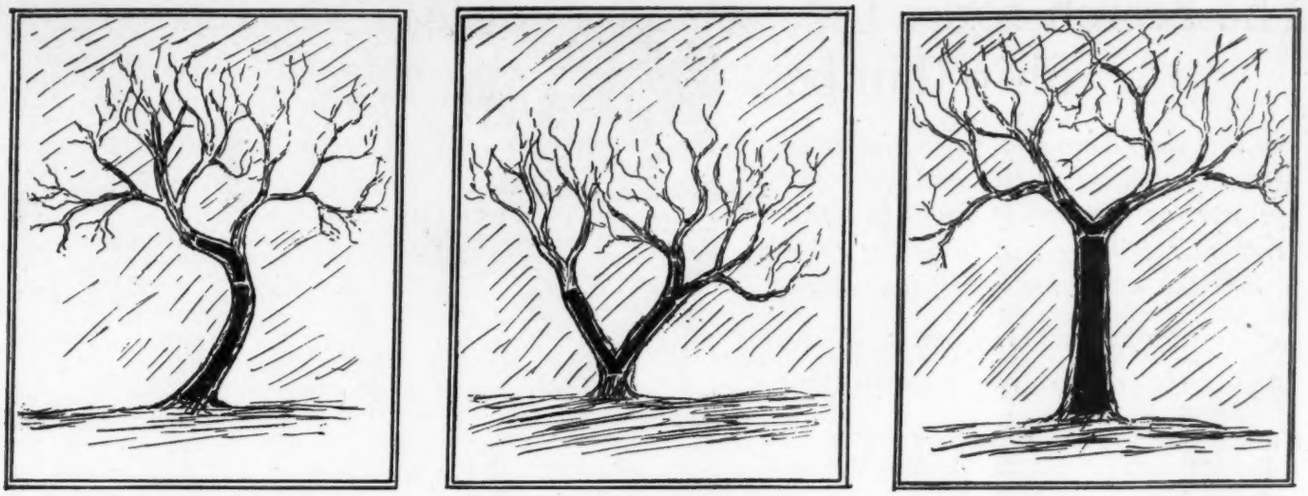


Building a ship in the 18th century, showing method of shoring.

In the long story of the navies and the merchant marines, the tree which played the leading rôle was the oak. Most nations used it for their ships of war and peace whenever they could. The English, in fact, developed a very stubborn prejudice for their own tough oak, and they carried this so far as to call for the oak of one particular county, Sussex, for the hulls of their best ships. To the Englishman, there was no ship timber in the world like Sussex oak.

It was not an altogether stupid prejudice. The damp, foggy climate and the clay soil combined to produce tough, gnarled trees with a reddish timber, capable of withstanding the buffeting which a ship would receive. Properly seasoned for two or three years, it could withstand dry rot, and ships built of it would last without extensive repairs for 20 or 30 years. Like the English people, the English oak developed a rugged individuality. It grew with plenty of room to spread, so it had a chance to throw out the unconventional limbs which made splendid knees and other crooked timbers.

If there had been a plentiful supply of this native oak, it is doubtful if the English would ever have gone elsewhere for their ship timber. The trouble was that an oak could be cut down in half an hour and it took a hundred years to grow another in its place. Land owners preferred to grow corn on their estates. They could see the crop ripen in a few months, while the oaks which they planted



Oaks, showing cuts of ship timber.

would not be ready for cutting until their great grandsons came into the estate. For two whole centuries England was engaged in naval war with the French, Dutch or Spanish nearly half the time, and the naval demands, combined with the constantly growing merchant marine, made too heavy a drain on the oak groves. The logs of extra size and queer shape became so scarce that shipwrights looked around for substitutes. They found that elm and beech would serve for the keel and other parts below the water line, but the sternpost and other parts of the upper frame needed the full strength of oak.

Forced to look beyond the seas for timber, the English first turned to the ports of the Baltic Sea. The merchants of Danzig, Riga and Stettin, having little else to offer in trade, began to sell timber at a very early date, and they developed the best organized timber trade to be found. Their oak was not the best in Europe, for the oak improves in quality the farther south it grows. There was splendid oak in Italy — so tough that it turned the edges of the shipwrights' tools — but the Italians found other occupations more congenial than woodcutting, so their groves were spared. Meanwhile, Baltic timber found its way more and more into the hulls of English vessels. In the Navy Baltic oak was regularly used for planking and English shipwrights sometimes used Baltic fir, a tree which could be used for a whole ship from keel to topmast, but which lacked the strength and durability of oak.

As the American colonies developed, the English turned to them for naval materials. They saw that a hostile power could cripple their shipping by closing the Baltic to trade. It was an accident that England got a low opinion of American oak. Just as in Europe, the best timber grew in the south. The live oak, which skirts the southern coast in a narrow belt, is tough and sound, and it grows in all the fantastic shapes which delight the eye of a shipwright. In the same region grows the red cedar, a tree producing excellent timber, lighter and straighter. The two made a splendid combination for the hull of a ship. The southern colonists, however, detested woodchopping. Captain John Smith tells us that his Jamestown adventurers blistered their soft hands with the axes, and chopped so reluctantly that he had to impose a fine for swearing. These gentlemen soon found that it was more pleasant to let the negroes raise tobacco and cotton, so the live oak and cedar of the South remained almost unknown in the shipyards of England.

In the northern colonies, it was quite a different story. Their white oak had some good qualities, but it lacked the strength of the English oak or of the live oaks. It was subject to dry rot, too, after being carried across the Atlantic in the steaming holds of the timber ships. Frequently, by the time they were unloaded, the logs were covered with fungi. But the northern colonists needed something to offer in trade, so, like the Baltic peoples, they turned to fish and lumber. The tough Yankee colonists were of a hardier breed than the southerners and could hack away in the forests all day without blistering their hands. Settlements had hardly been started before the colonists were hawking cargoes of white oak around the ports of England. The Navy and many of the merchant builders, however, scorned it.

The Yankees had another trick which laid the basis of many a seaboard fortune. They found that with materials right at hand, they could build ships of white oak for half the cost of a ship built in England. So they built hundreds of them. Each ship would go on a voyage or two to the West Indies and then across the Atlantic to be sold to some English merchant. It frequently happened that these ships built for sale were of unseasoned timber, hastily thrown together, so that they rotted quickly. When the Yankees wanted ships for themselves they either seasoned their white oak properly or sent south for live oak and red cedar. It is small wonder that Lloyds' and the Admiralty developed a low opinion of American oak.

The supply of native English oak failed just at the time when timber was needed to build and repair ships to meet Napoleon's threat of invasion. Little oak could be had from Europe, for the French shut off every port from the Baltic around to the Black Sea, while Jefferson at the same time was shutting off American commerce. Canada remained loyal and sent huge quantities of its oak, but it happened that the ships in which it was used sometimes rotted even before they put to sea.

England, therefore, started a world-wide search for new timbers, and every continent sent its contributions. Greenheart came from South America, while African natives learned to cut stinkwood for the British shipyards. Even Australia and New Zealand sent shiploads of jarrah and kauri. The choicest of all ship timbers was found in India. The teak, a tree somewhat resembling the oak, had long been used by the Indians for their ships. In the period of emergency, the English had numerous teak warships and merchantmen built at Bombay and Malabar. They proved strong and durable, and the old convict ship *Success*, which is still afloat, has a teak hull built in India during those years. The Thames shipwrights feared

(*Continued on page 94*)

Coming: the 100-Mile-an-Hour Boat

A Forecast of the Future in Speed Upon the Water

By George F. Crouch

TRYING to predict what will happen in any line of human endeavor — foretelling what will be the trend of development ten years in the future, or even less — is a dangerous pastime for any one who cares to retain the respect of his fellow craftsmen. I have been asked so many times what I think the boat of the near future will be like that I am attempting to answer, not by predicting anything, but rather by reviewing the developments of the past quarter of a century. With that as a basis from which to work, you may draw your own conclusions regarding what may come, much as an engineer extends a curve to predict results that are a bit beyond anything he has actually tried out in practice — a method which is nothing more than shrewd guess work, tempered by experience and judgment.

George F. Crouch.

The first and the biggest thrill given me by a high-speed boat came from the little *Vingt-et-Un*, a 21-footer designed by Tams, Lemoine & Crane, almost 25 years ago, while I was a draftsman in their employ. She carried an automobile motor rated at 21 h.p. but which developed considerably more, and at top speed she made about 21 miles per hour. We tried her out on the Harlem River, running along the famous old Speedway where the drivers of fast horses did their best to beat her. Her propeller turned at the then unheard-of speed of 860 r.p.m. We tried turning a little faster, but thought we experienced trouble with cavitation. Today a motor turning 860 r.p.m. would be considered almost a heavy duty motor rather than a racing or high speed model. In the little 151 cu. in. hydroplane class the propellers have turned up as high as 4800 r.p.m. during the past summer, and in one case a propeller speed of 6000 r.p.m. has been exceeded in a 91½ cu. in. boat.

Twenty years ago every experienced designer would have declared without hesitation that a propeller speed of 4000 r.p.m. was an absolute absurdity. Although we do not see how it will be done, it would be foolish to say that some time within the next few years 10,000 revolutions might not be possible — that some form of propeller, some improvement in design or material, might not permit it. Such a thought is merely an extension of our curve of experience.

Boat forms have improved to such an extent that they can hardly be compared with the original type. Our first high-speed boats were all of the round bottom form. We tried to drive them *through* the water rather than *over* it. A boat which lifted out of the water at the bow was considered a poor model, as it lost part of its available length. It seems almost a ridiculous statement today, but, nevertheless, it is true that in those days length was considered a most important factor in obtaining speed.

It took only four or five years to make evident the faults in this reasoning, and in 1910 the first concave-V model was built and raced on the Hudson River. Many boats with straight V sections had been built years before, the most famous, perhaps, being the Chesapeake Bay dead-rise model. In the past 15 years the concave-V has become the standard type of hull not only for small runabouts of high speed but for fairly large cruisers. This type of hull has reached its highest development in the Gold Cup Class boats, speeds of approximately 60 miles per hour representing the peak of performance for boats of about 25 feet in length.

At 60 miles an hour, a 25-foot concave-V type of hull becomes very tricky, due to varying pressures and suctions on the long unbroken surfaces as the boat passes over the uneven water surface. In my opinion, any progress toward faster, safer and more highly powered boats must proceed along lines other than the concave-V type. A scrutiny of what has been done during the past four years with this type of hull is almost positive proof of this statement, for there has been little development in form and increased speeds have been obtained almost entirely by reduction in weight of hull and motor and by increased power, rather than by refinement of hull lines.

Back in 1870 an English clergyman, Ramus by name, submitted a model to the British Admiralty with a saw-tooth step in the bottom — the first step hydroplane. His proposed model was full of faults. Nevertheless it contained the germ of the hydroplane idea which was brought to the front by W. H. Fauber in the years 1907–1910. Fauber is known as the proponent of the multiple step idea. Some of his boats were extremely successful. Other designers were quick to seize upon the essentials of his idea and try to improve them, and the years from 1910 to 1912 saw the rapid introduction of the step hydroplane for racing. Speeds never dreamed of before became possible because the hull slid over the surface rather than through the water.

From the modest 21 miles of *Vingt-et-Un*, speeds increased until the pinnacle was reached by Gar Wood's hydroplane, *Miss America II*, which made over 80 miles an hour. There seems to be no reason why a speed of 100 miles per hour will not be reached eventually, but the difficulties in the way of attaining it are many. As the speed increases it becomes more and more difficult to keep the boat in the water. She will plane on her propeller shaft; the slightest ripple will send her into the air. The problem is not so much to get *sufficient* planing surface, but to present a *small enough* planing surface. I know that many minds are working on this problem and I believe, with the impetus given by the change in the Gold Cup rules from the concave-V type of boat to the hydroplane type, that ideas will be brought forth which will eventually result in the 100-mile-an-hour boat.

Let me suggest another line of thought. I believe that another type of boat is about due. Any boat which is supported by the reaction of the water surface is bound to ride hard on rough water. One day recently when some-

one asked me why we could not make boats ride as softly and easily as automobiles, I jokingly answered that the only way to do so would be to make them ride entirely above the water or entirely submerged. Any swimmer knows that he cannot go through heavy surf by trying to swim the surface. He would be battered and thrown back on the beach. If, however, he goes down under the water he can swim through the big breakers without suffering any punishment.

Applying this idea to boats, I believe that the high-speed boat of the future will involve the use of submerged hydrofoils, obtaining its stability by properly spaced surface planes carrying only a small portion of the load. On the other hand, stability may come from the use of warping hydrofoils, much as the stability of an airplane comes from the action of its ailerons. Since submerged hydrofoils are more efficient than any surface plane, and since the whole difficulty with their use has been one of stability, that problem will surely be solved when we realize their many advantages.

George F. Crouch

FOR twenty-five years George F. Crouch has been a dominant figure in the world of motor boat design. No other designer, perhaps, has experimented so lavishly with various types of craft nor won such a varied assortment of important racing events. He is the father of the concave V-bottom runabout which, in this extremely interesting glimpse into the future, he predicts has reached, with the Gold Cup type of boat, practically the end of its journey as a racing craft, although it is still the most practical hull form for standardized runabouts and certain types of cruisers.

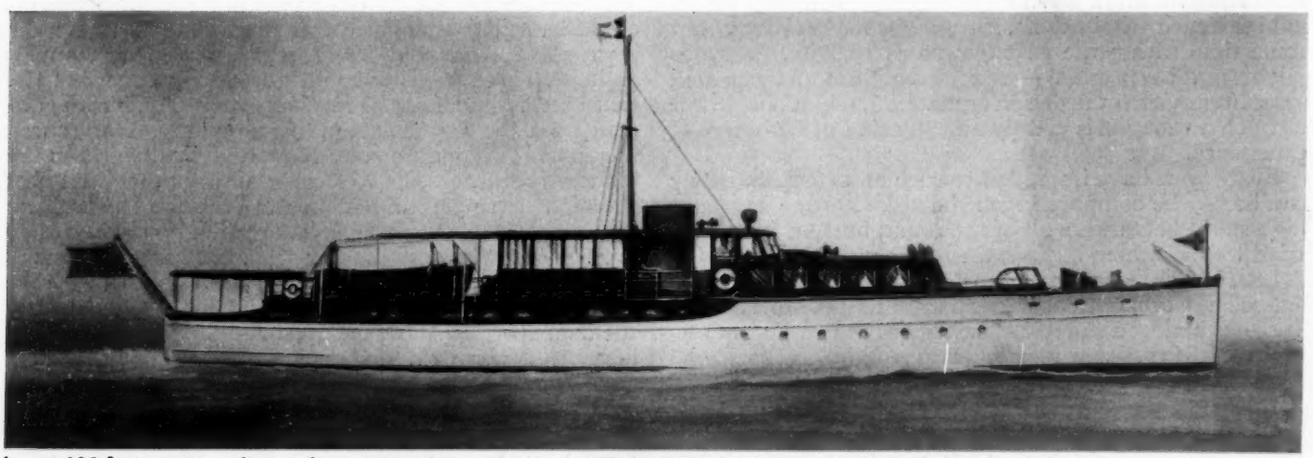
Mr. Crouch's first high-speed motor boat was designed and built in 1901, three years before the first Gold Cup race. In 1905 he joined the faculty of the Webb Institute of Naval Architecture and later, in 1920, became the head of that world famous institution, at the same time continuing to design boats that had a great influence on the entire motor boat industry in this country and abroad.

His first concave V-bottom craft was the famous *Peter Pan IV*, which he produced in 1910 and which attracted much attention from motor boating enthusiasts and from designers. In 1911, when the American-designed, English-built *Pioneer* came to this country and demonstrated in amazing fashion the speed superiority of the hydroplane with steps built into the bottom, Mr. Crouch turned his attention to this type of boat and his hydroplanes were among the first ever built in this country. They included, among others, *Peter Pans* Nos. *V*, *VII* and *VIII*. These speedy craft proved their utility for racing, but Mr. Crouch saw that the future of motor boat runabouts lay in the displacement type, so he spent much thought designing the famous *Cinderellas*, which, at that time, were the fastest displacement boats ever built. One of these, with a 75 h.p. engine which weighed 1400 pounds, made the then unheard-of speed of 30 miles an hour. A later model made 35 miles an hour with a 90 h.p. engine weighing 870 pounds. Later Crouch boats, *Rainbows I*, *II* and *IV*, were highly successful in various races, piloted by the skillful hand of Commodore Harry B. Greening.

On leaving Webb Institute in 1923, Mr. Crouch went whole-heartedly into the designing of racing boats and achieved the unprecedented feat of winning first, second and third places in the Gold Cup race of 1924 at Detroit, with *Baby Bootlegger*, *Miss Columbia* and *Rainbow IV*. He repeated this victory in 1925 when *Baby Bootlegger* retained the famous trophy against the finest fleet of race craft ever assembled in a speed contest up to that time. This year one of his boats again holds the Gold Cup through the winning of second place in last August's race by his three-year-old *Miss Columbia* and the relinquishment of the trophy by George Townsend, who won with his *Greenwich Folly*.

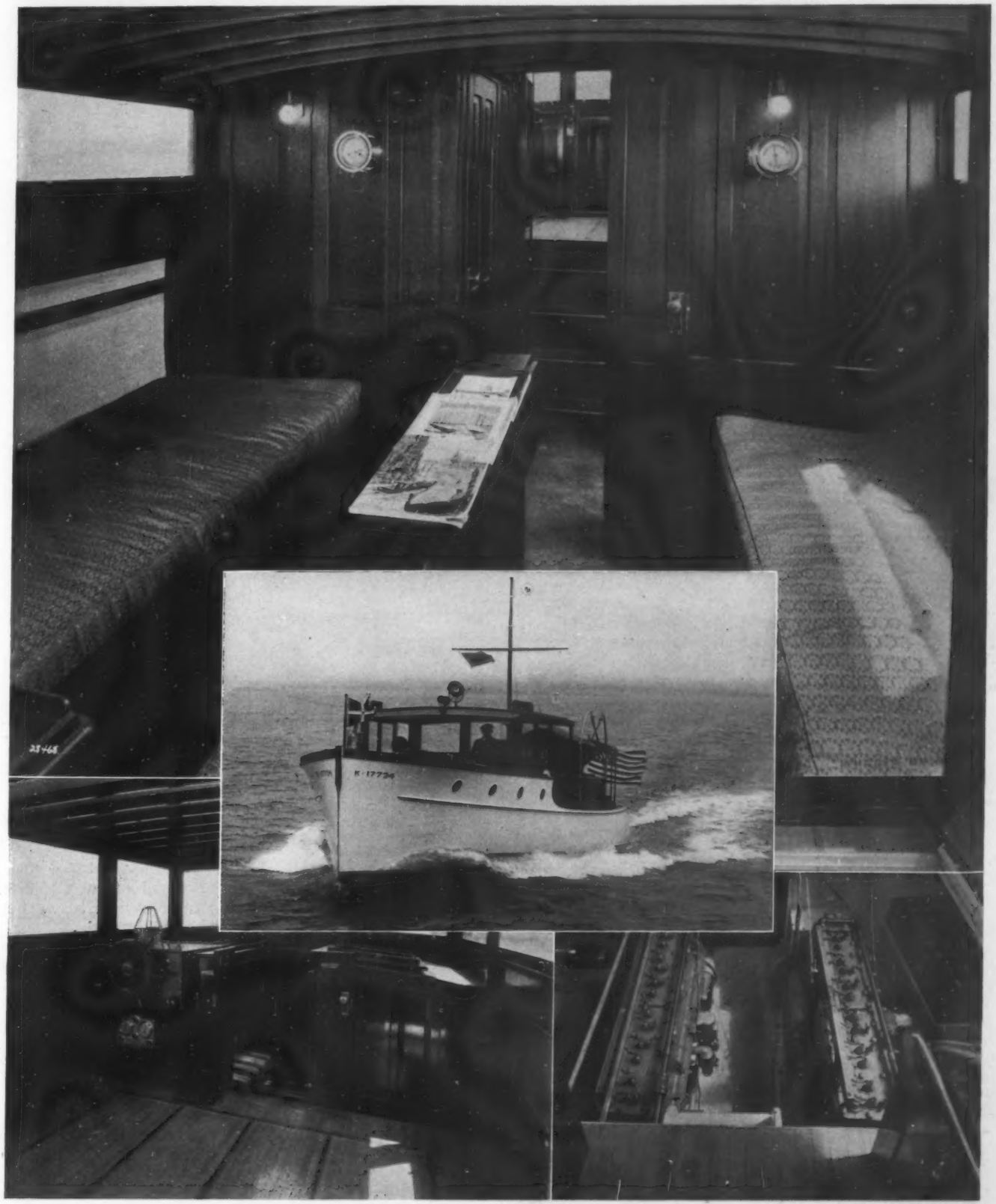
George Crouch's other boats have won innumerable prizes in the country's greatest races. One of the most successful has been *Teaser*, owned by Richard F. Hoyt, which made the astonishing record of over 50 miles an hour from Albany to New York, to say nothing of capturing the 105-mile free-for-all race on Manhasset Bay in 1925 and the International Trophy race as well. During 1927 Crouch-designed and Dodge-built boats won most of the great races of the year, *Solar Plexus* winning the 90-mile Detroit Yacht Club development race and the beautiful *Miss Syndicate* accounting for the Detroit 150-mile Sweepstakes, the President's Cup race and the contest for the $15,000 Dodge Memorial Trophy. His first plunge into the 151-class, with *Miss Massachusetts* seemed bound for great eventualities.

Mr. Crouch is vice-president of the Horace E. Dodge Boat Works, of Detroit, all of whose standard models are from his designs. In the accompanying article he lends his quarter of a century of varied and successful experience to a sagacious and portentous glimpse into the future.



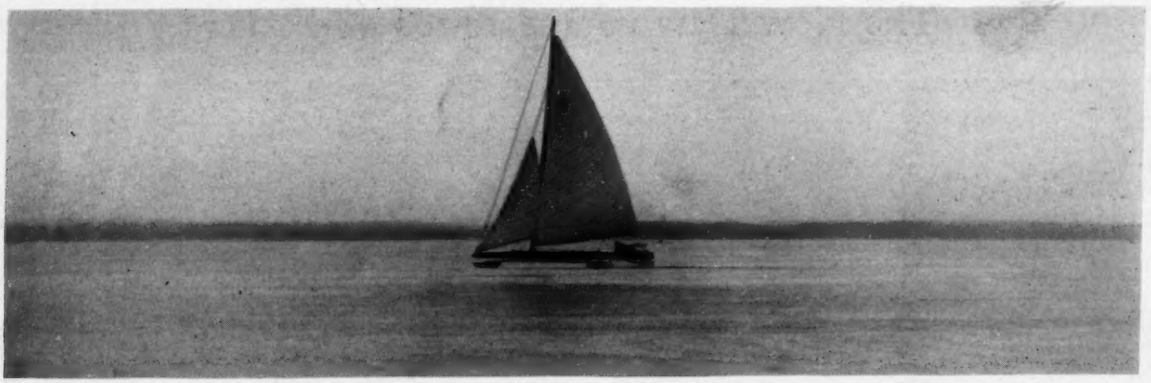
A new 106-foot power cruiser under construction at the yard of Robert Jacob, City Island, for L. P. Fisher, of the Larchmont Yacht Club. She is from designs by John H. Wells, and will make 20 m.p.h. with two Winton motors.

The New Dawn Standardized 45-Footer



Photos by M. Rosenfeld

The new standardized Dawn cruiser shown here is an unusually pleasing and handsome craft. She is a twin-screw boat, and does from 15 to 16 m.p.h. with two 6-cylinder, 65 h.p. Kermath motors. (Top) The spacious after cabin, looking forward; (below) the bridge deck, with full engine room control; and (right) the engine installation. One of these boats will be exhibited at the Motor Boat Show.



Blue Bill, for three years champion of the Northwestern Ice Yachting Association in the 350 square foot class.

Ice Yachting in the Northwest

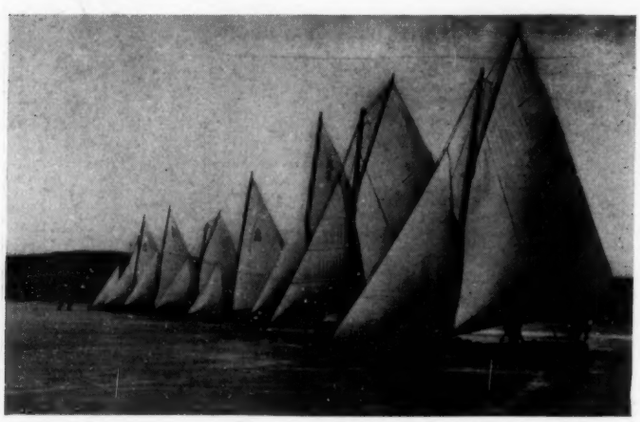
A Fast and Thrilling Sport that Makes a Big Appeal to the Yachtsman

By J. D. BUCKSTAFF

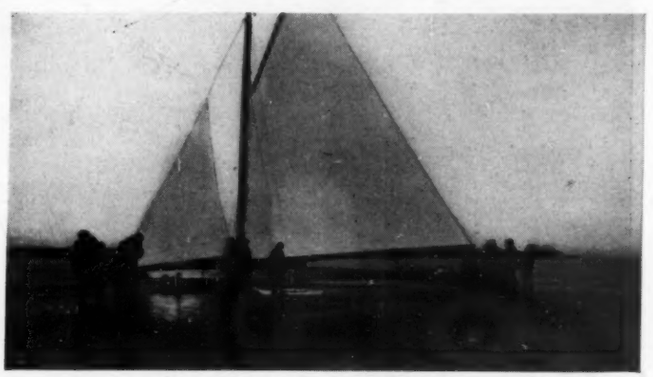
THERE never was a cleaner, finer and faster sport than ice boating. Sharp wits, clear vision, and keen judgment are some of the essentials for piloting an ice boat successfully. When traveling at express speed overstanding a mark a few seconds would be disastrous to any leading boat. It is far more difficult to sail an ice boat down wind than it is going to windward. An ice boat skipper cannot see the puffs coming as he can over water, nor can he tell their velocity and direction, — elements which make the game all the more fascinating.

Lake Winnebago, Green Bay, Lake Geneva and Lake Mendota offer, each winter, wonderful glassy surfaces for ice boating. Comparatively shallow, these lakes freeze over in December, and remain frozen until well in March. Around Oshkosh it is not an unusual sight to see 60 or 70 ice boats scudding around bays and points or cruising across the lake. Winnebago has practically no ice heaves, and a stretch of 12 by 36 miles offers a rare opportunity for tremendous speed with great safety.

In years gone by the usual argument of "who has the fastest" aroused the sporting blood of both the young and middle-aged, and racing around the ever-interesting triangle became a match of skill and wits. Arguments grew so hot, and the partisanship of the townspeople became so keen that the late L. Frank Gates, a fine sportsman, imported the crack ice yacht *Sirius* from the Hudson River. The *Sirius* was a monster and a demon for speed, beating all our small "wishbone" craft in every race. This marked the turning point of ice boat designing on Lake Winnebago and from then on all new boats were copied closely after the Hudson River flier. The *Sirius* carried about 550 feet of sail and was 45 feet long. For years all the local craft tried to beat her, using lateen rigs and cat rigs, but with no apparent results.



The smaller classes of 350 and 250 square feet of sail are now the most popular. Here is a start in the former class (A) at a Northwestern Ice Yachting Association regatta.



Douglas Van Dyke's *Debutante III,* holder of the Stuart International Cup, and for many years the most successful large ice boat of the Northwest.

Just about this time the aeroplane came into existence and the men who travel fast heard a lot about wind pressure, stream line and resistance. Douglas Van Dyke, of Milwaukee, was quick to see that the experience of air craft designing could be utilized to advantage in an ice boat, so with the help of that famous designer and and builder, Buckout, of Poughkeepsie, New York, he worked out *Debutante III* which now holds the Stuart International Cup and is emblematic of the championship of the United States and Canada.

Just prior to the building of *Debutante III* the North Western Ice Yachting Association, composed of ice boat clubs from Menominee, Michigan, and from Madison and Oshkosh, Wisconsin, was formed for the purpose of standardizing classes and holding annual regattas to determine the fastest boats and crews. *Debutante III* easily outdistanced all boats in the larger class. Several regattas were held which created much interest, and many

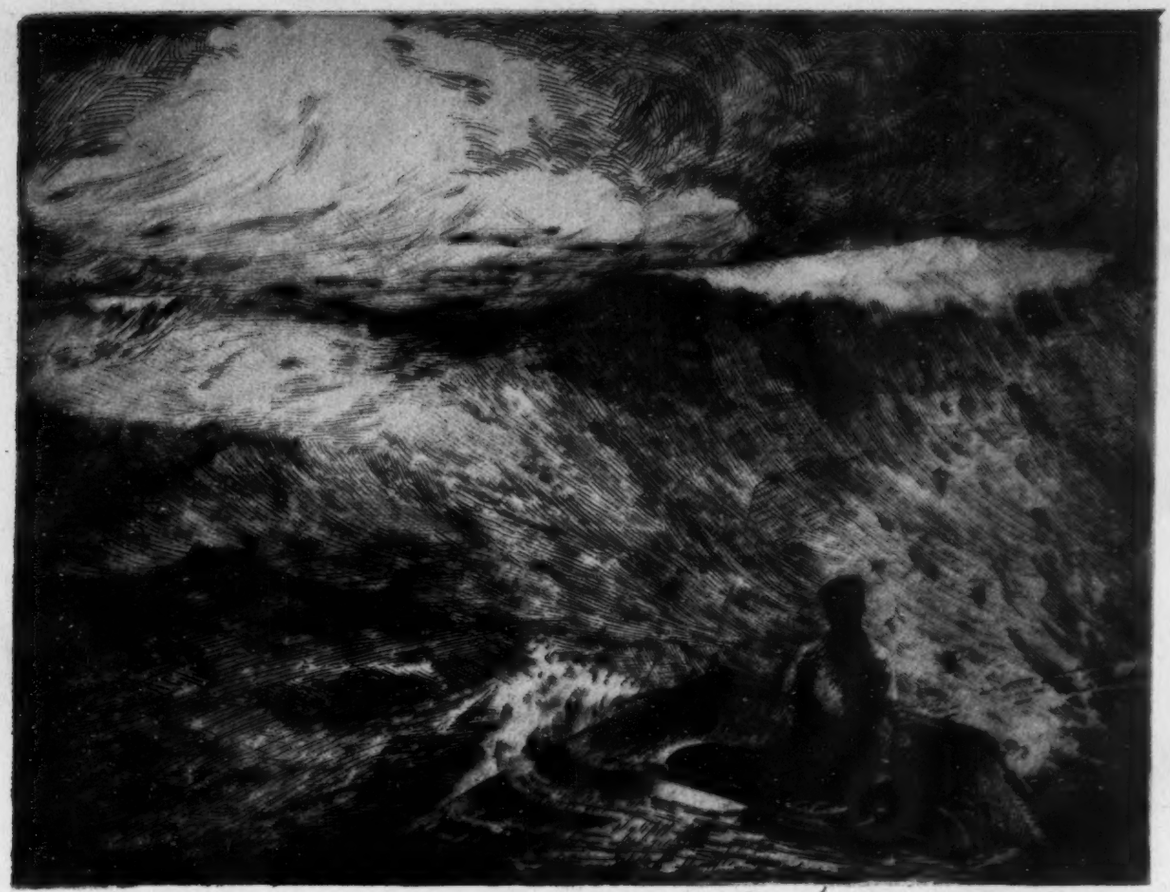
(*Continued on page 98*)

IN THEIR LAST HARBOR.

Courtesy Russell Palmer, Esq.

Some reproductions of the work of Charles R. Patterson, well-known painter of ships and the sea.

At right: THE "OLD MAN."



RUNNING OFF!

Schooner *Primrose IV* on her recent Atlantic voyage.

From an etching by Frederic M. Gardiner.

OUTWARD BOUND!

Drawing by J. J. Tapley.

A Sea Pilgrim

An Account of Thomas Drake's Long Single-Handed Voyage

By Weston Martyr

The little schooner *Pilgrim* after her 53-day single-handed voyage across the Atlantic.

I WAS crossing Westminster Bridge on the top of a 'bus the other day, when out of one corner of my eye I caught a glimpse in the river below of a little sea-stained schooner, with the Stars and Stripes flying from her main truck. Now Westminster is in the very heart of London, and a seagoing craft in the river there looks about as natural as a hippopotamus or a crocodile. I judged, therefore, that I was "seeing things." I felt as you would feel if you suddenly observed a Gloucester fisherman on the lake in Central Park; so I shut my eyes and counted ten before I opened them again. But it was no good. The phenomenon persisted. There, moored to the bank in the very shadow of the Houses of Parliament, was a sure-enough schooner, with a bunch of Gulf weed hanging from her bobstay, the salt still white in her rigging, and *Pilgrim*, Seattle, on her stern. I abandoned the 'bus.

I do not know how I got aboard that schooner; but I remember finding myself standing on her deck, gazing with awe and amazement at the queerest craft I had ever seen in my life. She looked about 30 feet long and 10 wide and boasted a bare foot of freeboard. Most of her deck was occupied by a cabin-top the size of a barn, while aft was a large, wide-open cockpit. A long, slim bowsprit stuck out ahead of her, its nakedness emphasized by the fact that it lacked a jib stay. The masts looked ridiculously weedy and tall. The shrouds were made from the sort of stuff landsmen use for staying telegraph poles. Iron guy wire, I think they call it. Anyway, it is impossible to splice it, so that the eyes of the schooner's rigging were merely a bunch of twisted loops. There was a little patent anchor sticking out of a hawsepipe, and a main-sheet block fastened to the deck by, apparently, a cast iron staple. (I am just giving you my impressions as they hit me.) The deck was covered with a black composition consisting of coal tar and sand. The mast hoops were thin steel rings. Both peak halliards rove through single blocks on the gaffs, and the fore sheet was a single rope, leading through a bullseye to the cockpit.

Now all these things are, to say the least, highly unusual aboard a seagoing craft and they consequently filled me with wonder — and suspicion. I looked over the stern again to make sure my eyes had not deceived me. But there it was, without a doubt: *Pilgrim* — Seattle. I sat down in the cockpit and scratched my head — and it was only then that I observed a little blackboard propped up against the wheel, with the following remarkable announcement written upon it in chalk:

> Come Aboard the Big Little Ship.
> CURIOS FOR SALE.
> Sailing Around the World.
> Captain Thomas Drake,
> "The Lone Sea Rover."

"Aha!" said I to myself. "Curios for sale. So *that's* the game is it? Of course! *Now* I understand. It's some darn swindle."

Then I got angry. I do not object overmuch to a good hearty ruffian with his three-card trick or his elusive pea and thimble; but it annoyed me to think that here was a miserable impostor deliberately defiling the reputations of all true small-boat sailormen by pretending to be a lone hero sailing himself around the world — and in an unseaworthy abortion of a craft like this one, too. So I hammered vigorously on the companion hatch. I desired exceedingly to say a pregnant word or two to this impudent faker before I went ashore and gave his game away to the police.

The hatch slid back and two mild eyes behind a pair of spectacles looked out at me inquiringly. "Have I the honor," said I, assuming my most offensive tones, "of addressing Admiral Sir Francis blooming Drake?"

The eyes smiled and a voice drawled, "Say, that's a good one. Come below, Stranger — and warm yourself."

That cabin gave me a surprise. I expected to find a trumpery pseudo-marine raree show laid out down there with an eye to parting the landlubber from his money. But, instead, there was a delightfully shipshape feel about the place and it smelt nicely of Stockholm tar and oil-skins. It was bigger, too, than it seemed from outside, and its neatness, cleanliness and the simplicity of its appointments seemed to mark it as the dwelling place of a seaman. On the fore bulkhead hung a clock, a barometer, a brace of stay hanks and an old-fashioned ebony quadrant. Bare locker seats ran along each side; and aft there was a red-hot stove, a wooden stool and a small table. On the table lay an open book, and, to gain some idea of the character of its owner, I glanced at the title. It was the *Cruise of the Cachalot* by Frank Bullen, so I turned to take another look at this alleged lone rover of the sea. He was a very little man — if he weighed a hundred pounds it would surprise me — and I judged he must have left his sixtieth birthday a long way astern of him. He moved across the cabin to the hatch and shut it and I saw that he was a cripple.

"Look here!" said I. "Are you the owner of this outfit?"

"I sure am. Built her myself — out of stuff I picked up on the beaches mostly. It took five months, but she's turned out good. Not so fast as my last one; but she's comfortable — an' lucky."

"Ho! Then where d'you reckon you've come from?"

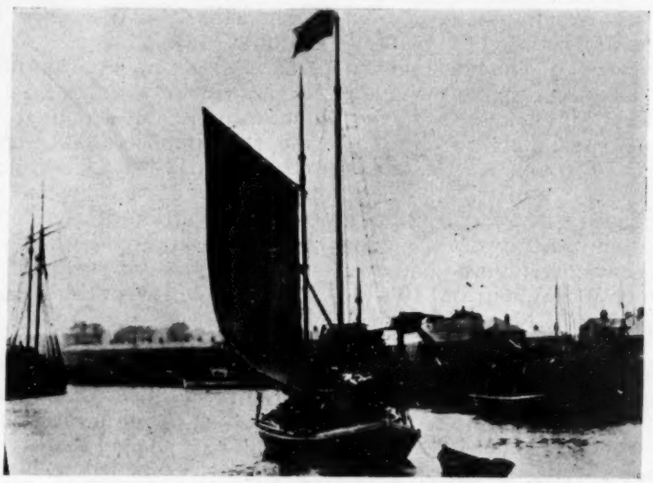
"Puget Sound. Left Seattle two years and five months ago last Sunday."

"Do you really want me to believe you've taken all that time to get here?"

"Sure! I been a long way. Started out to go round the Horn; but after I left the Galapagos she got all crusted up with barnacles, so I had to run into Puerto Utra to clean her. Say! You never want to get within a mile of them danged Dagoes. They cleaned me right out, and I had to run back to Panama City to raise some more dollars. I'd had a belly full of Dons by then, so I went on through the Canal intending to sift around awhile through the West Indies; but the Trades were that strong in the Caribbean I got blown away to hell-and-gone nearly to Bluefields. And the best I could do then was to work north, through the reefs on the Mosquito Bank until I fetched up in Cuba. After that, being around that way, I took a look at Haiti and all those little islands off to the east'ard as far as Barbados, and then worked up out of the heat by way of the Bahamas. I was counting them up in the log the other day. By the time I got to Charlestown I'd been to 89 ports. I left Charlestown on the 27th of April and reached Plymouth June 20th, 51 days from land to land and 53, port to port. Have a mug o' coffee? I don't ask you to have no lunch because I guess you'll find it kind of rough eatin'."

I fear I must have been a little dazed. I took the proffered mug (that coffee was the real thing) without even saying "Thank you"; and sank back on the locker while I tried to get my bearings. Before I found them the little man was well away with a savory smelling meat pie and potatoes boiled in their jackets.

"But — Good Lord, man!" I cried, at last. "Do you mean to try and tell me you've done all this by yourself — alone? And in this old — ." I was going to say "box," but I checked myself in time and substituted "packet."



"*Pilgrim's* masts looked ridiculously weedy and tall."

"Sure thing. What would I want with another hand aboard here? It'd only mean someone else to cook for and clean up after. No. I don't want no help. There isn't enough to do as it is making a passage. I take a look at the weather every once in awhile, sleep all night, cook two good meals a day besides breakfast, work out a sight when I feel like it, and read the rest of the time. That's why I don't like making long passages. I get tired doing nothing. So from now on till I fetch Yokohama I aims to make port about once every week. I'm going down through the Mediterranean and the Red Sea, and from here on it'll be all coasting, all the way to Japan. From there, though, I've got a 7000-mile passage to Seattle and I guess that'll make me feel real glad to get home."

"Now, hold on, Skipper!" I broke in. "I'm drinking your good coffee, but I want to talk to you straight. When I first saw you I took you for a fraud, but it wasn't long before I began to think I was mistaken. But when you intimate that you never have to steer this boat under any circumstances — Well, I'm by way of being a bit of a sailor myself, Cap'n."

"Well, I never do steer her, anyway. Sounds like a stretcher, don't it? But there it is. There was some guys aboard me in Boston who wouldn't believe it. In fact one of them as good as called me a liar, so I made him get the anchor up and we sailed out three miles, on a wind an' reaching and then came back on a dead run, and the only time I touched the wheel was to turn her round. When we got back I said, "Well, how about it?" And the feller says, "I'm damned if I believe it *yet!*"

Which is pretty much my own state of mind. I have had some long talks since with Captain Drake aboard his *Pilgrim*, and the man and the boat undoubtedly have done everything he says they have. I've seen his log, his snapshots and his visitors' book. They show he has done what he says — and more. But — Well, the *Pilgrim* is 35 feet long, with a 24-foot hoist to her mainsail, 20 feet to her foresail, a tremendous jib which sets flying, runners on her mainmast, no lazyjacks anywhere, and the foresail has a single rope as a sheet. The Cognoscenti will understand that such a rig needs manpower to handle it. I have owned a 35-foot schooner myself and it took three of us to snug her down when the winds began to blow. Now, the *Pilgrim's* crew weighs 100 pounds, is 64 years old and has a lame leg! It beats me!

The dimensions of this extraordinary ship are 35 feet over all, 11 feet beam, with only 3 feet 6 inches draft. She is double ended, with a straight 28-foot keel, a deadrise of about 4½ inches, a flaring bow, and topsides which do the opposite thing to tumbling home — whatever it is you call that. She is home-made, and looks it. But it is advisable not to laugh at her because her design, construction and rig are the result of *20 solid years' experience in building and sailing small boats singlehanded about the oceans*. She has oak timbers, cedar planking and spars of Oregon pine; and there isn't a leak or a weep in her anywhere except for an occasional drip through her cabin skylight.

Her ballast is all inside and consists of four tons of concrete and about a ton of water and stores. She is a stiff little ship. She has never put her guards under water in her life, and, during her Western Ocean passage, a kettle, which lives on the railless top of her Shipmate stove, only fell off six times. In a sea-way her deck must be a very dry place, if a plank and a boat-hook lying there all the way from Charlestown mean anything; and I *know* she took no heavy water aboard, because she started out with a largish dory lashed athwartships abaft of her cockpit, with its bow and stern sticking out a few feet over each quarter — and that dory was still there when she got to Plymouth. She is fast, too. Eight knots is perhaps her limit, and she has run 180 miles in 24 hours without being driven.

A whole lot of ink has been spilled of late (and some blood too, nearly) concerning two subjects of great importance and interest to all real small boat sailormen. Some of us have maintained that it is possible to make a little ship steer herself, while others who have tried it contend that the thing cannot be done. Again there are those who insist that a shallow draft boat is not fit to keep the sea. They assert that such a craft cannot be made to lie-to properly, even with the help of a centreboard, and so on; and they pin their faith on hulls with a good, deep grip in the water. As a result, the owners of

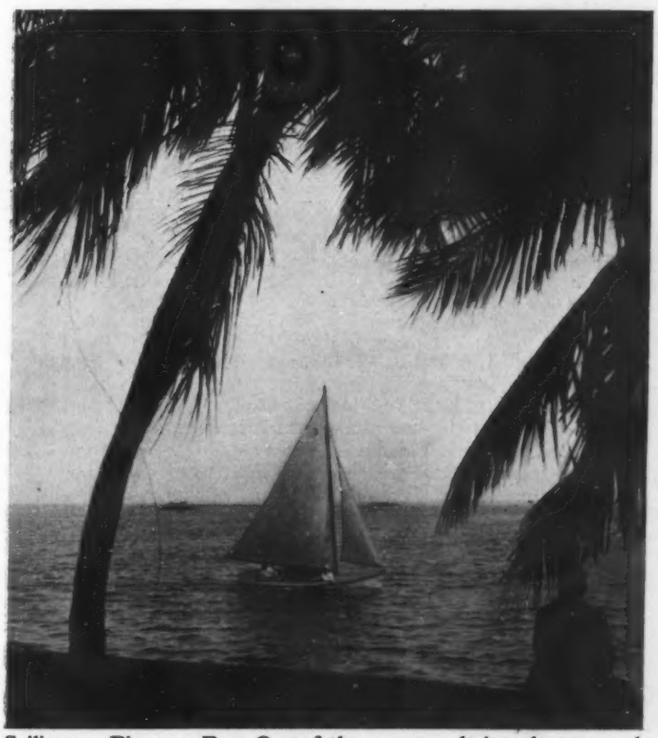
(*Continued on page 112*)

The east coast of Florida will see an unusually large fleet of cruisers this winter. Looking across Lake Worth to Palm Beach.

Florida Plans Many Regattas

MOST of the power yachts which have been headed south for the winter season have arrived in Florida, and early in January the fleets at Palm Beach and Miami had reached good proportions, while those that had tarried at ports between Biscayne Bay and Jacksonville will push on southward before the month is over.

The first week of the year saw the opening of the actual boating season when the City of Miami held a Palm Fête to celebrate the completion of the extensive improvements it has been carrying on for some years, including the deepening of the ship channel to the sea. The last two days of this celebration were devoted to water sports, including races for the "outboards," sailing races and rowing events. The yacht clubs on Biscayne Bay are planning a series of sailing races for the numerous one-design and other classes of sailboats in Florida, as sailing is becoming increasingly popular in southern waters.



Sailing on Biscayne Bay. One of the new one-design classes raced at this popular winter resort.

Biscayne Bay Regatta

In February, Palm Beach will stage a speed boat regatta at which most of the racing classes will be represented. From here the racing men will go down to Miami, and on March 16th and 17th, the Annual Biscayne Bay Regatta will be held, at which several important championships will be decided, and a number of perpetual challenge cups raced for. Among these is the handsome Colonel Green Trophy, emblematic of the outboard motor boat championship. With no hull or engine restrictions, this race should see the fastest time yet made by outboards — considerably better than 30 m.p.h. — if the water conditions are good. Other races will include the 151-class, stock runabout, Biscayne Bay one-design class, etc.

"Gar" Wood is expected to have a new unlimited hydroplane at Miami this winter, and hopes to better the mile speed record of 80.56 m.p.h., made at Detroit some years ago. So Biscayne Bay promises to see great activity through the winter and spring. Sir Thomas Lipton has offered a cup for sailing yachts on the Bay, and the first race for this trophy will be held this spring.

Runabouts are a popular type in Florida, where in many places boating is brought to one's very door.

Tampa Bay, Jacksonville, and other yachting centers will also hold races at dates that do not conflict with the events mentioned, so that the owners of racing boats will get all the sport they want in Florida this winter.

On March 19th, 20th, and 21st, following the Biscayne Bay Regatta, it is planned to hold a motor boat show at Miami Beach, the first outdoor motor boat show held in this country, it is said.

P. Doyle & Co.

Bermuda from the air, showing Hamilton Harbor, where the fleet in the Bermuda Race anchors.

The Month in Yachting

Bermuda Race Entries

ALTHOUGH no entry blanks have been sent out, nor definite entries sought, a sufficient number of owners have signified their intention of taking part in the Bermuda Race to insure an excellent fleet at the starting line on June 23rd. It does not seem to be the case, as might have been expected, that the conflict with the Spanish-American Race has lessened interest in the Bermuda Race, the former being primarily for yachts larger than those which go to Bermuda. With a few exceptions, owners of craft under 70 feet over all seem to prefer the 660-mile hike to Bermuda rather than the 3000-mile course to Spain.

Among the first boats to be entered in the Bermuda Race were R. N. Bavier's ketch *Dragoon*, and John G. Alden's new schooner, *Malabar IX*. Fred Ames is practically sure to start in the famous *Primrose IV*, while J. Rulon Miller, who sailed *Blue Water* in both the Cape May and Gibson Island races, will go to the line with a new Alden schooner close to 60 feet over all. Dudley Wolfe, whose *Alert*, ex-*Aquanno*, won in Class B in the Gibson Island Race, is also having a new Alden schooner built, and is hesitating between the Transatlantic Race and the Bermuda Race. *Black Goose*, ex-*Mystic*, now owned by Everett Morss, is said to be a sure starter, as is *Malabar VIII*, now owned by Charles B. Downs, who owned and sailed *Black Goose* in the 1926 Bermuda Race, the Cape May Race and the Gibson Island Race.

Dr. G. B. Warren will be on the job in a new schooner designed by W. H. Hand, Jr., while Roger Young will take his third crack at the Bermuda Trophy in *Caroline*. Vice Commodore Edward Crabbe, of the Cruising Club of America, will probably be unable to resist the temptation of starting *Windjammer*, and Charlie Atwater, who cleaned up the Cape May Race in *Duckling*, will be on the job if he finds he can spare the time.

A. M. Lindsay, of Rochester, will represent the Great Lakes in the schooner *Sea Hawk*, ex-*Flying Cloud*, which took second prize in her class in the 1923 race. Graham Biglow is seriously considering putting *Teal* in shape for the contest, as is G. M. Pulver with the Seawanhaka schooner *Scimitar*. Nelson Wolfe has almost convinced Frank Draper that it is essential that *Flying Cloud* take part and show how much better the jib-headed cutter rig is than any other rig for seagoing purposes, while Marty Kattenhorn is considering making things interesting in Class B with the doughty *Surprise*. And Jack Shethar is wondering if he can spare enough time away from his Sound Interclub champion *Babette* to show the paces of his recently-acquired Seawanhaka schooner.

The printed conditions and entry blanks will be ready early in February, and may be secured by addressing H. L. Stone, Secretary, 25 West 43rd St., New York City.

Entries for the Spanish Race

PLANS for the Transatlantic Race from Sandy Hook to Santander, Spain, are taking shape and great interest is being shown by yachtsmen, especially those who own yachts in the larger class. In this class, which will be sailed without time allowance, the following definite entries have already been received:

Yacht	*Owner*	*Rig*	*Length Over All*
Aloha	A. Curtiss James	Bark	218′
Atlantic	Gerard Lambert	3-mast Schr.	185′
Cresseda	Hermann Oelrichs	Tops'l Schr.	172′
Guinevere	Edgar Palmer	3-mast Schr.	195′
Speejacks	A. Y. Gowen	Schr.	127′
Zodiac	J. S. and R. W. Johnson	Schr.	126′

Other owners of large yachts are considering entering and there is a possibility of the fine racing schooner *Elena*, now owned by W. B. Bell, starting. This latter yacht should give *Atlantic* a hot race, particularly if the weather were light to moderate.

In the smaller class, under 55 feet on the water, fewer entries have come in, but it is probable that the fleet of little boats will be swelled to good size before the start. The definite entries so far consist of the schooner *Diablo*, owned by W. W. Pedder, of Los Angeles, and the winner of the Honolulu Race of 1924, and a new staysail schooner building for Paul Hammond from designs by Burgess, which should be ready early in May. Dudley Wolfe is building a new schooner, 60 feet long, from designs by John Alden, which he may enter in this race, although he is still considering putting her in the Bermuda Race, and later in the Fastnet Race. Obviously he could not take in all three events.

In this latter class there will be time allowance, the boats being measured for rating under the Bermuda Race formula. The start

Cresseda, a new topsail schooner owned by Hermann Oelrichs, and entered in the Spanish Ocean Race. She is now on her maiden voyage to Nassau. Designed by Cox & Stevens, she is 172 feet in length.

for this class will be June 30th, while the larger class will start a week later, July 7th. The distance is approximately 3,250 miles.

In the larger class the *Atlantic*, on paper, seems to have the first call for winning the race. She not only has the length, but she is an extremely fast vessel, and in her race for the German Emperor's Cup in 1905, she set a record for a Transatlantic passage over the course from Sandy Hook to the Lizard, that has never been equalled under sail, of 12 days 4 hours, the distance being 3,113 miles. It is true that *Atlantic's* rig has since been reduced somewhat, but some lead has been taken out to compensate for this loss of sail area, and there are rumors that she will again have a larger rig for the race this summer.

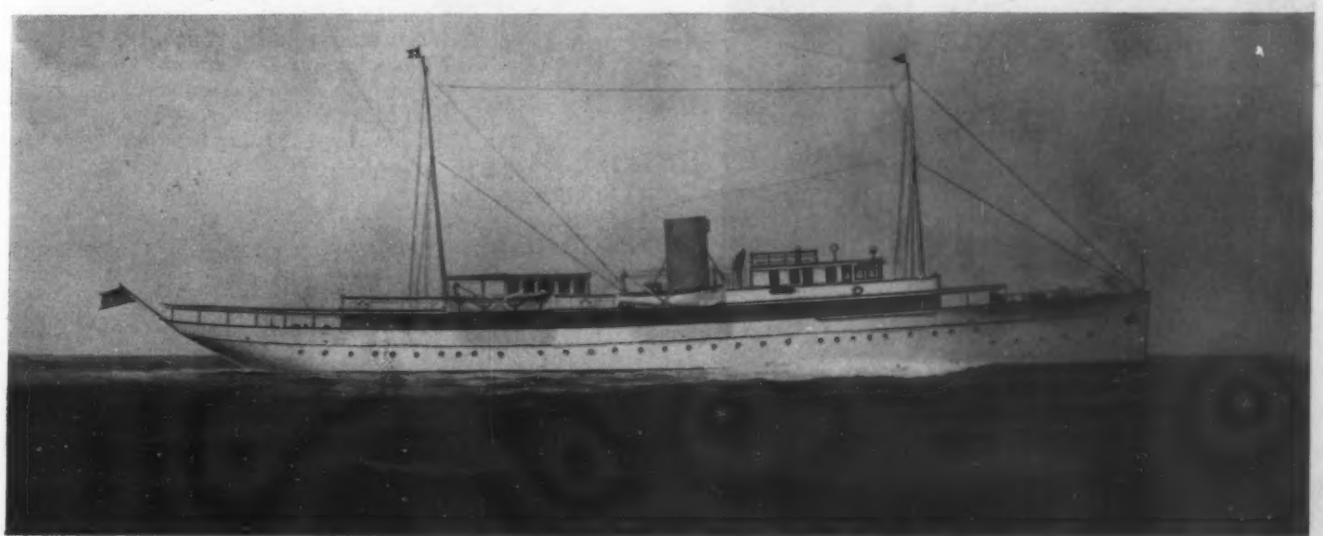
Membership in the North American Yacht Racing Union

DUE to the fact that many inquiries have been received from yacht clubs in various parts of the continent asking as to the possibility of their being able to become affiliated with the North American Yacht Racing Union, and thus be brought into closer contact with the Union than is possible through their local associations, the Executive Committee recommended and the delegates, at the recent annual meeting, passed a resolution which provided that individual yacht clubs, whether members of racing associations or not, might become members of the Union for the nominal dues of $10.00 per year. Yacht clubs thus admitted will receive copies of the Year Book, bulletins, etc., and have the privilege of representation at all general meetings of the Union. They will not be qualified to vote, however, as that privilege would tend to erect too unwieldy an organization.

This action was taken in order that active yachtsmen in districts which are not now organized, as well as those which are organized, might have more direct contact with the Union, and also that officers of the Union and its Executive Committee may have the benefit of suggestions, advice and the constructive criticism of yachtsmen who would not otherwise be reached.

It is hoped that many yachtsmen, members of such clubs, will also join the Union as individual members at $5.00 per year, or as sustaining members at $25.00 per year, and thus indicate their interest in, and accord that support to the Union in what it has done and is doing to foster and promote the sport of yachting on the North American Continent.

Ernest Stavey, the corresponding secretary of the Union, will be glad to answer inquiries in regard to the foregoing. His address is 80 Broad St., New York City.



The twin-screw Diesel yacht *Ara*, building at the Bath Iron Works, for Ernest B. Dane, of Boston. She is 240 feet in length and is powered with two Bessemer Diesel motors. H. J. Gielow, Inc., are the designers.

The Lookout. A wash drawing by Charles Rosner, from his work showing life aboard a windjammer.

"While the spray goes flying lu'ward
As she steps right out to walk."

To the Good Ship

SOME men call it sailing
When they can take their ease
Aboard a stately liner
That ploughs the Seven Seas;
But give to me a sailing craft
With rigging snug and taut,
And I'll take my chances
On making any port.

I want to feel the wheel tug
And see the shaking luff,—
To watch the green seas tumble aft
When water's getting rough;
I like to see the deck aslant
As she goes heeling down,
And hear the canvas crackle
As you swing the ship around.

Sometimes she'll lie in doldrums
When all the sea is flat,
And roll her scuppers under
As you hear the reef points slat;
Then a breeze begins to freshen
And the timbers start to talk,
While the spray goes flying lu'ward
As she steps right out to walk.

Let others have their liners
With white decks and shining rails,
But I want to look aloft
And see the swelling sails;
I want to see the jib-boom plunge
In smother of white foam,
Or watch the topmasts swinging
As the ship goes rolling home!

ALFRED STUART MYERS.

Ship Models

The Lure of the Sea Reflected in the Vogue for Models of Sailing Ships

By C. G. Davis

Models made by the Author

Model of the American bark *James A. Wright.*

TO the present generation, ship models embody in their form that enchantment and lure of the sea associated with the days of sail. To those uninitiated into the mysteries and dangers of life at sea aboard the old square-riggers, they are a symbol of a past fabulous with adventure, extravagant with romance. To those who can summon in imagination the stirring days of deep-water voyages in sailing ships, they restore, in vivid livingness, the days of youth.

Ship models whittled out by eye, as old sailors used to make them, have little value except as curios. Recently, however, considerable data, which has made possible the building of models exact in every detail, has been published. Faithful reproductions, beautiful in their precision, have appeared to perpetuate their famous prototypes.

After a year in the *James A. Wright*, around the Horn to Chile and back, we left her anchored off Pigeon Point, in the Delaware River. The accompanying photograph shows her as she looked that day. We had stripped off most of her chafing gear and stowed it in several barrels up under the forecastle head. We had unbent all her sails and stowed them in the poop decks under the booby hatch.

The voyage had been full of tribulations — a "hard working" mate, grub so poor that, on one occasion, all hands had assembled on deck and, after showing the captain the pannikins with the food in them, had heaved it overboard. Captain Freeman's reply was a threat to put the crew on "whack," as the government allowance was termed. We had all deserted ship at Calita Bueno when, loaded for home, we found that no new provisions had appeared, and we had experienced the miseries of being lost in the alkali desert of Antofogasta. Yet, when we rowed ashore that May day in 1892, and looked back upon the *Wright*, spick and span, with every yard squared, we hated to leave her.

In the year following I secured from her builders, Jackson and Sharp, of Wilmington, a copy of the table of offsets and spar measurements of the *Wright*, drew up a set of plans, and made this model — a replica of the *Wright* as, looking back from the shores of the Delaware, I last saw her.

The *Thames*, whose model I made, was a little old-fashioned ship operated about the year 1800 by the firm of Alsop & Hicks, merchants of New York. A large oil painting made by a Chinese artist when she was in the

(*Continued on page 112*)

A model of the old bark *Rebecca Caruano.*

This fine model is of the ship *Thames, circa* 1800.

Editorial

The Proposed Tax on Foreign Built Yachts

IN reference to the proposed user's tax on foreign built yachts, about which we commented in this column last month, the draft of the proposed levy, as approved by the House of Representatives, is now before us. As drawn, the bill exempts from the provision of the tax all yachts already in this country, or all those for which contract was placed prior to December 1st, 1927. These yachts pay only the tax in effect at the time they were brought into the United States or ordered. All other foreign built yachts brought in hereafter, whose contracts were placed after December 1st, 1927, will pay an annual tax as follows: from 32 to 50 feet over all length, $10 per over-all foot; from 50 to 100 feet over all length, $20 per foot; yachts over 100 feet over all length, $40 per foot.

The provision exempting yachts already brought into the country under existing laws is both wise and just. What is desired by the boat builders is not to penalize owners of existing yachts, but to protect against the future. This the bill will do, if it passes both houses of Congress and becomes a law. And those hereafter who then contemplate building abroad will know in advance the penalty they have to pay.

We understand, however, that the German government has made strong representations to the State Department that the provisions of this proposed tax violate certain trade agreements between that country and the United States. If this is so, it may have an effect on Congress in its actions on this particular clause of the tax bill. In which case the whole matter may have to wait over for tariff legislation. Which, in the last analysis, is where it properly belongs.

Echoes of the Fastnet Race

Considerable feeling has been stirred up in some quarters over certain articles on the Fastnet Race that have appeared in YACHTING, in which our correspondents have appeared to criticize some of the yachts in that strenuous event for not continuing in the race. If any injustice has been done to any yacht or skipper, we are sorry and offer our apologies. Undoubtedly there were good and sufficient reasons for most of the withdrawals in that race, and this was pointed out in both of the accounts of the event that appeared in these pages. The last thing we would appear to advocate is that one should continue when good seamanship and good judgment point to the advisability of seeking shelter. To do so would jeopardize the future of the sport.

But some of our critics hold that there is no good reason for continuing on after one has lost interest in the race, or is hopelessly beaten, or is faced by strenuous and uncomfortable conditions. With this view we cannot hold; nor do we believe that it is the view of the real sportsman. These long distance and ocean races are meant to be a test of one's seamanship, resourcefulness and endurance. They presuppose a certain amount of hardship, the taking of some chances, and they offer a compensating satisfaction in merely completing a hard course under adverse conditions, whether one wins or not. If one is not willing to face these facts, then he had better not start at all. To give up, merely because one has lost interest, or lost heart, is not a spirit which the sea encourages, or which has animated those who have followed it from time immemorial.

More Experimentation by Dr. Curry

Those readers of YACHTING who have followed Dr. Curry's interesting experiments in the theory (and practice) of aerodynamics as applied to sailing yachts in his series of articles in this magazine, or in his book, will be pleased to hear that he has gone still further into the whole matter of increasing the speed of yachts by the introduction of several radical features which he has incorporated into a new boat he has built recently. In a boat with some of these features he recently won the small boat championship on the Wannsee, near Berlin.

Dr. Curry writes that up to the end of December the experiments with new rigs and hull forms have been continued with successful results. A new type which he has tested out has proved so surprisingly fast that he believes it will revolutionize the design of German yachts, and he states that most of the small yachts now building in Southern Germany are in accordance with these new principles. Some of the new features utilized comprise a double mast; a self-adjusting jib on a free swinging boom; control of jib and mainsail by one sheet only; a stiff mainsail (like an aeroplane wing); adjustable centerboard and keel, and a new form of hull. The result, he says, has been greatly increased speed.

He has shipped one of these boats, 21 feet in length, to the United States, where she arrived recently, with the expectation of exhibiting her at the Motor Boat Show, so that yachtsmen could see the lines he has been following in his experiments. But as the Show management decided this year to confine the exhibits to American products only, it has not been possible to place this craft on view, so American yachtsmen probably will have to wait until Spring to see her.

In the next number of YACHTING, we hope to have pictures, diagrams, and a complete description of this craft.

In the World of Yachting

J. H. RAND, JR.

ALTHOUGH a comparatively recent "convert" to the racing of high-speed power craft, J. H. Rand, Jr., of Buffalo and New York, has gone into the sport with such enthusiasm and determination that today he is one of the outstanding figures at every motor boat regatta. He, and his large and growing fleet of "Spitfires," did much to make the past season the success that it was.

It was only two years ago that Mr. Rand took up racing seriously, and his pair of "Spitfires," V and VI, set a hot pace in the 151-class of hydroplanes, and hung up a world's record in that class. Always striving for higher speeds, he was ever ready to build new hulls and try new power plants, until his racing craft began to come so thick and fast that it became difficult to keep track of them.

After a successful season in 1926 he took his two flyers to California in December and "cleaned up" there, winning the Elgin Trophy in record time. This last season he was equally successful, and his fleet grew until it numbered nearly a round dozen, including the big power cruiser "Spitfire II." At Boston, at Detroit, at Washington, and again at San Diego, his boats were successful. His "Little Spitfire," driven by Ralph Snoddy, brought to this country the Duke of York Trophy, when she won at Southampton in the 1½-litre class, and the same boat won the international race at Detroit, beating both the British and the German teams. And just last month his "Miss Spitfire V" won the Elgin Trophy in California for the second time.

Not content with the 151- and the 1½-litre classes he, or, rather, his son, has been under fire in the outboard motor classes with "Baby Spitfire."

So it will be seen that his racing career, although short, has been a strenuous one. Such enthusiasm as his means much to the sport.

Model Yachting Association Refutes Charge of American Skipper in last International Race

Editor, YACHTING:

IN his otherwise excellent account which appeared in your September issue, Mr. John Black makes the following statement:

"The only unpleasant feature of the whole series occurred late in the forenoon races. The local man who acted as mate for *Berlin*, due to the illness of her regular mate, Herr Roloff, was seen to apparently throw his race to *Gertrude*. The case was reported to the Officer of the Day by an official, but no action was taken. This happened again later in the day, and this unsportsmanlike action cost the American challenger the cup."

As Secretary of the Model Yacht Racing Association, which organized these races, I was unable to reply until the matter had come before the Council and until we had heard from Herr Kruger, skipper of the *Berlin*. Now I request that you give this letter the same prominence that was accorded Mr. Black's article.

Mr. Black advisedly uses the word "apparently," as an assertion of this nature requires a deal of proof. Mistakes occur and when a deputy is sailing against a clubmate it is easy to assert that a board has been deliberately lost. The man who helped Herr Kruger had assisted him the previous day and the German skipper asked him to act as mate when it was found that Herr Roloff was ill.

It is common knowledge that *Berlin* was erratic and all her opponents (including Mr. Black) profited thereby. Had this been true only when she was opposed to *Gertrude* and when she was handled by Herr Roloff's substitute, there *might* have been some grounds for Mr. Black's remarks.

I would also remind your readers of a fact that Mr. Black himself must be well aware of. The M. Y. A. makes all the preliminary arrangements and bears all the expense of holding these races, but in order that no competitor may have cause for complaint the sole control of the races is vested in an International Regatta Committee. In this case the committee consisted of Mr. Black (U. S. A.), Mons. Aubourg (France), Herr Kruger (Germany) and Mr. Cuthbert Paine (Great Britain). Once the stage is set and the racing started, the Model Yachting Association does not have the power to interfere in any way with the conduct of the races.

If Mr. Black thought he had cause for complaint he should have laid it before this committee without delay, in accordance with the conditions under which this race is held, instead of making statements of this nature months after the event. Mr. Black proved himself a good sportsman and a good loser, and therefore, his present action is all the more surprising.

I append statements by Mr. Cuthbert Paine, Officer of the Day, and Herr Kruger, skipper of *Berlin*, the German yacht. These are conclusive and the matter requires no further answer or amplification.

C. N. FORGE

Copy of Letter from Mr. Cuthbert Paine, Officer of the Day.

Hon. Secretary, Model Yachting Association, Great Britain

My attention has been drawn to a paragraph in Mr. John Black's article in the September number of YACHTING in which he reports an incident in the last day's racing.

Mr. Black is mistaken in his statement that "no action was taken," for on my umpire reporting the matter to me, I interviewed Herr Kruger and his mate, Mr. Jackman, asking for an explanation from the latter. He demonstrated to me that the gear of *Berlin* was so badly constructed that it was almost impossible to move a bowser on the running sheets and that the delay occurred entirely through his inability to make a proper adjustment. I then told him that it had been reported to me that he had deliberately held *Berlin* to give *Gertrude* a lead. He assured me that this was not so as he had no thought but to do his best for the skipper he was sailing for, and appealed to my knowledge of him as a sporting model yacht sailor to disabuse my mind of any such idea. I then told him that I would accept his statement but that if any further report reached me I should report him to the Council of the Model Yachting Association.

I then spoke to Herr Kruger who said that he and his mate had difficulty in making adjustments, but that he was perfectly satisfied with Mr. Jackman as a mate, both for his skill in handling the boat and general conduct.

After hearing this explanation, which I deemed satisfactory, I allowed racing to proceed. I may state that no second incident was reported to me, nor can I learn that any such took place.

I trust that you will communicate the substance of this letter to YACHTING as I feel that our character for impartial conduct of the international contests has been unfairly disparaged by Mr. Black.

(Signed) G. CUTHBERT PAINE

Extract from Letter of Herr Paul Kruger to Chairman, Model Yachting Association.

I read Mr. Black's account of the Gosport regatta in YACHTING and was most astonished, especially as on August 26th he wrote me a very cordial letter commencing "My dear friend Kruger."

I have to give you the following information:

On August 2nd after lunch, before starting the afternoon sailing, the Officer of the Day, Mr. Paine, told me that one of the umpires had reported to him that he considered Mr. Jackman, who was acting as my mate, had deliberately trimmed *Berlin* badly and delayed putting her off against *Gertrude*. The Officer of the Day asked me whether, under the circumstances, I wished to continue with Mr. Jackman as my mate. I replied that it would look very bad if I took another mate when only a single afternoon's sailing remained to complete the match, and that I wished to do nothing unpleasant, especially after the great kindness and hospitality that had been shown us. Mr. Paine replied that above all we were out for fair sport and that the best boat and skipper should win. Mr. Paine then warned Mr. Jackman that each time that *Berlin* met *Gertrude* he was not to interfere with the trim before the starts but leave this entirely to me, and that he was to be especially careful not to delay *Berlin* when she came ashore any more than was essential. If Mr. Jackman had previously held *Berlin* or delayed her, which I cannot credit as I was watching the sailing most keenly all the time, I am positive that he did not do so during the afternoon after Mr. Paine warned him.

I think that Mr. Paine should be asked for his account of what transpired. I may add that I personally was very well satisfied with Mr. Jackman.

It is neither fair nor good sportsmanship for Mr. Black to write in this manner in YACHTING after the event. He had the power of protest at the time had he wished to avail himself of it.

(Signed) PAUL KRUGER

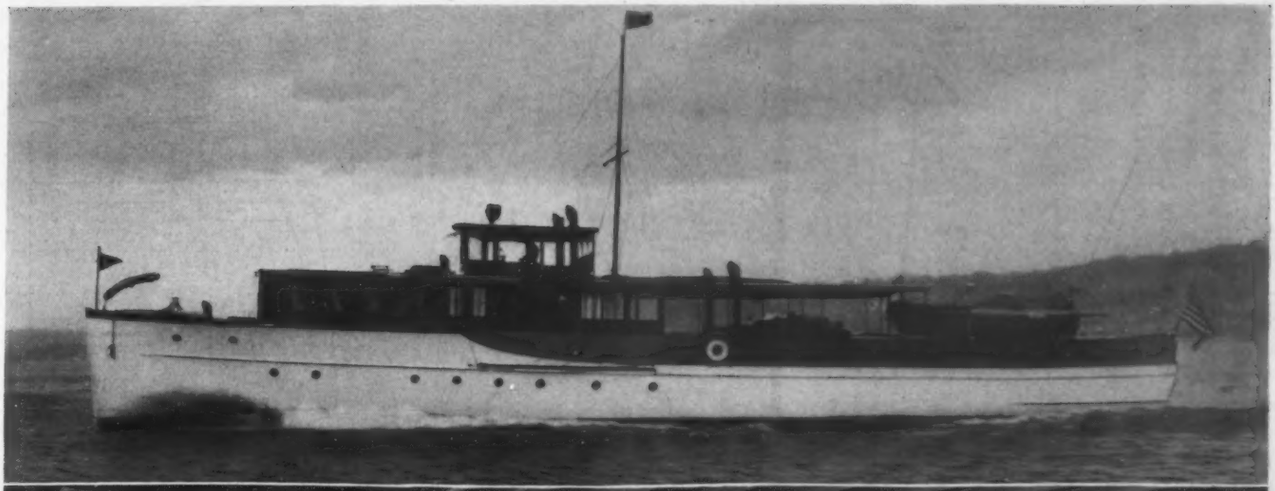
Annual Meeting of the Model Yacht Racing Association of America

THE Annual Meeting of the Model Yacht Racing Association of America, for the election of officers for the coming year, and the transaction of other business, will be held in New York on January 28th. Delegates from most of the clubs in the Association will be present. The Association, the only governing body for Model Yachtsmen in America, is composed of the following Model Yacht Clubs:

Prospect Park M. Y. C., Central Park M. Y. C., Montclair M. Y. C., Boston M. Y. C., Rhode Island M. Y. C., Detroit M. Y. C., Washington M. Y. C., Montreal M. Y. C., Ogden Park M. Y. C., Chicago M. Y. C., Toledo M. Y. C.

The officers of the Association have about finished work on a year book containing measurement and racing rules for Model Yachts.

The New *Alida*, 95-foot Fast Cruiser

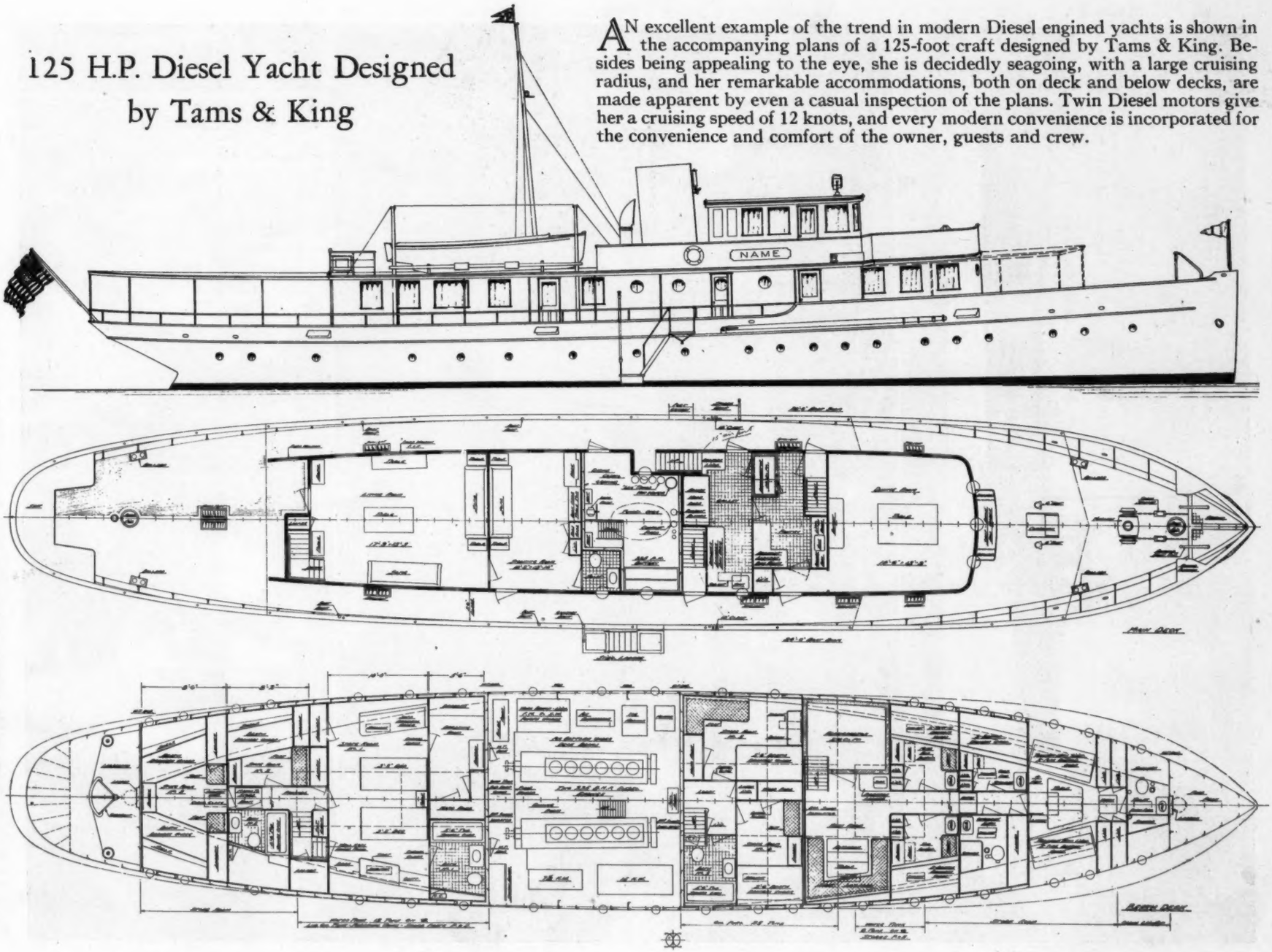


Photos by M. Rosenfeld

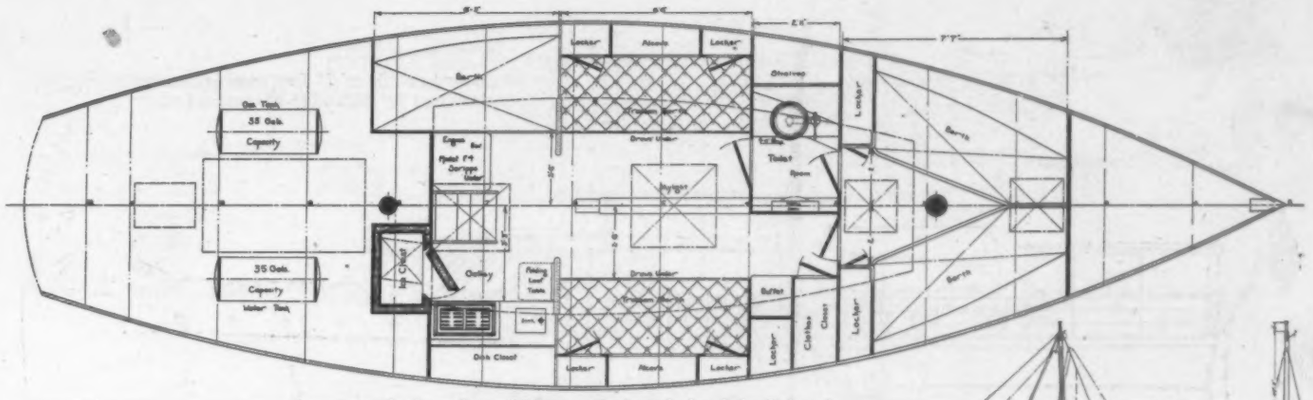
The new fast power cruiser *Alida*, recently launched for B. H. Borden, of New York, by her designers and builders, the Consolidated Shipbuilding Corporation, is a fine example of the development of this type of craft. A spacious deckhouse dining saloon, after cabin and three staterooms give excellent accommodations. Two 300 h.p. Speedways develop a speed of 19½ m. p. h.

125 H.P. Diesel Yacht Designed by Tams & King

AN excellent example of the trend in modern Diesel engined yachts is shown in the accompanying plans of a 125-foot craft designed by Tams & King. Besides being appealing to the eye, she is decidedly seagoing, with a large cruising radius, and her remarkable accommodations, both on deck and below decks, are made apparent by even a casual inspection of the plans. Twin Diesel motors give her a cruising speed of 12 knots, and every modern convenience is incorporated for the convenience and comfort of the owner, guests and crew.



Profile and accommodation plans of 125-foot Diesel yacht designed by Tams & King.

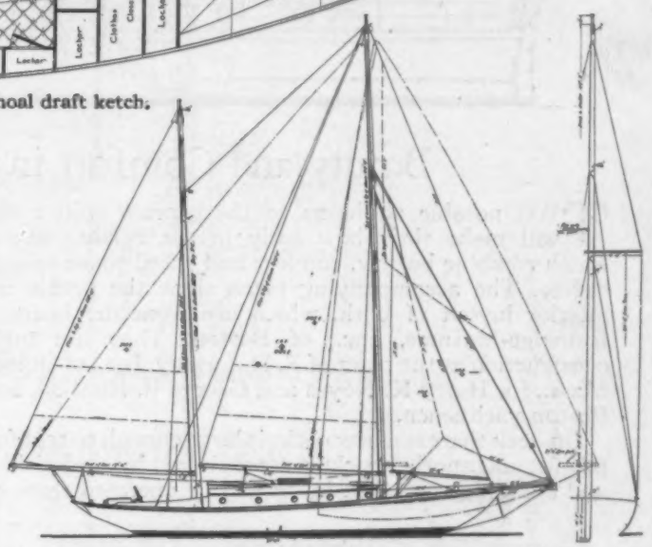


Accommodation plan of Mower-designed shoal draft ketch.

A 43-ft. Shoal Draft Ketch

SHOAL draft and a Marconi rig are combined in the accompanying plans of a 43-foot ketch from the board of C. D. Mower, of New York City. She was designed for Alfred E. Denio, of Girard, Pa., and built by Herman Lund, of Erie. Her water line length is 30 feet, beam, 12 feet 6 inches, and draft 3 feet 6 inches without board. The sail area is 922 sq. ft. in the three lowers, while a Model F-4 Scripps motor gives good speed under power.

The galley is placed aft, on the starboard side, with large ice box under the bridge deck. Opposite the galley is a single berth, amidships is a spacious main cabin, separated from a forward stateroom by a fine toilet room to port and lockers, buffet, etc. to starboard. The motor is installed off center on the port side.

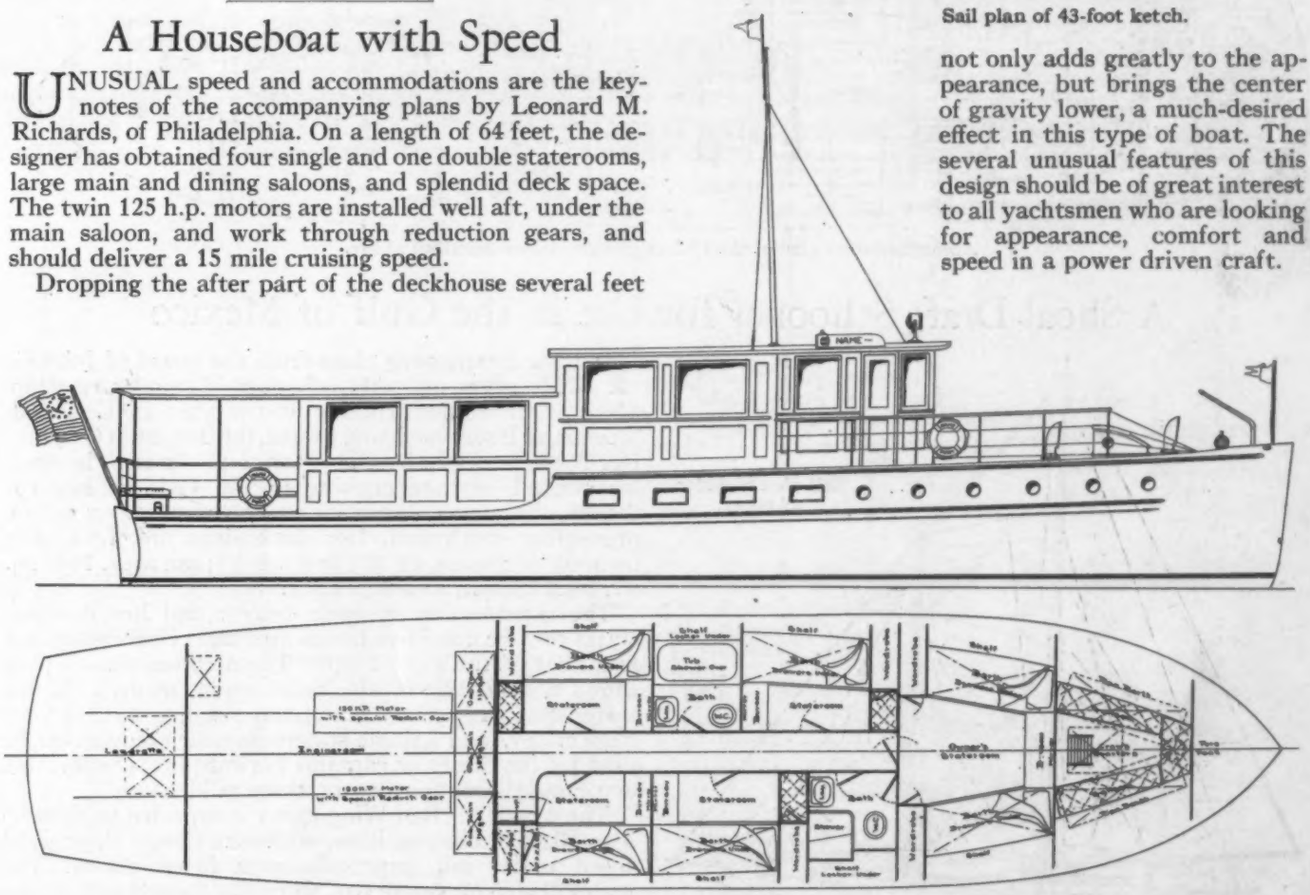


Sail plan of 43-foot ketch.

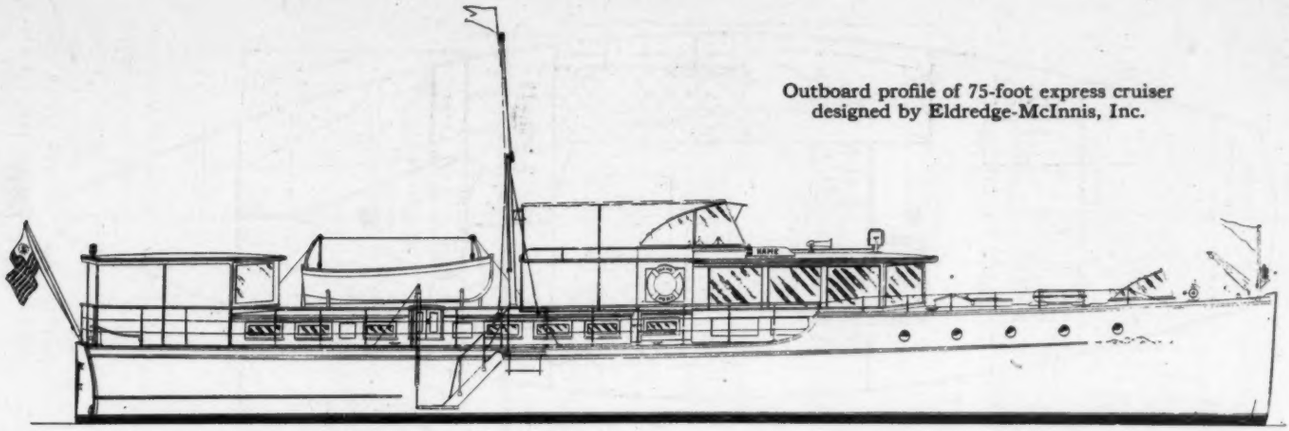
A Houseboat with Speed

UNUSUAL speed and accommodations are the keynotes of the accompanying plans by Leonard M. Richards, of Philadelphia. On a length of 64 feet, the designer has obtained four single and one double staterooms, large main and dining saloons, and splendid deck space. The twin 125 h.p. motors are installed well aft, under the main saloon, and work through reduction gears, and should deliver a 15 mile cruising speed.

Dropping the after part of the deckhouse several feet not only adds greatly to the appearance, but brings the center of gravity lower, a much-desired effect in this type of boat. The several unusual features of this design should be of great interest to all yachtsmen who are looking for appearance, comfort and speed in a power driven craft.



Profile and accommodation plan of 64-foot fast houseboat designed by Leonard M. Richards.



Outboard profile of 75-foot express cruiser designed by Eldredge-McInnis, Inc.

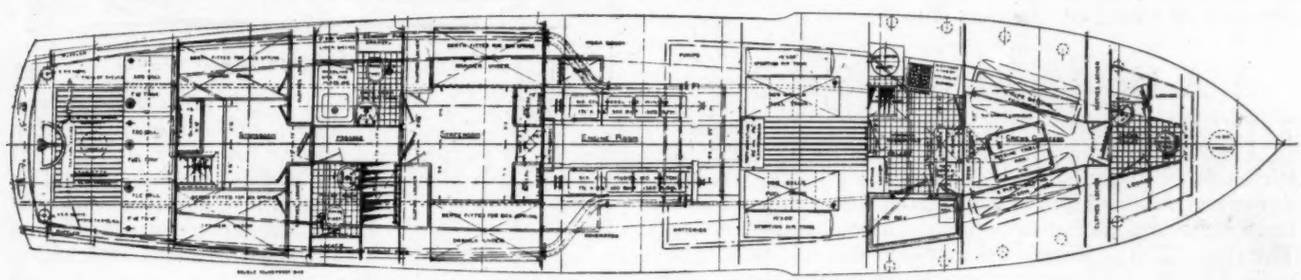
Beauty and Comfort in a 25-M.P.H. Express Cruiser

TWO notable additions to the express cruiser fleet will make their bow early in the coming season, which combine beauty, comfort and speed to an unusual degree. The accompanying plans show the profile and interior layout of both, which are from the board of Eldredge-McInnis, Inc., of Boston. They are under construction at the plant of F. D. Lawley, Inc., of Quincy, Mass., for Harry K. Noyes and George B. Kimball, both Boston yachtsmen.

On deck there is a bow cockpit large enough to seat four people, and another cockpit aft sheltered by a windshield and standing roof. The boats will be operated from the bridge and lounge deck, where all controls are brought within easy reach of the helmsman.

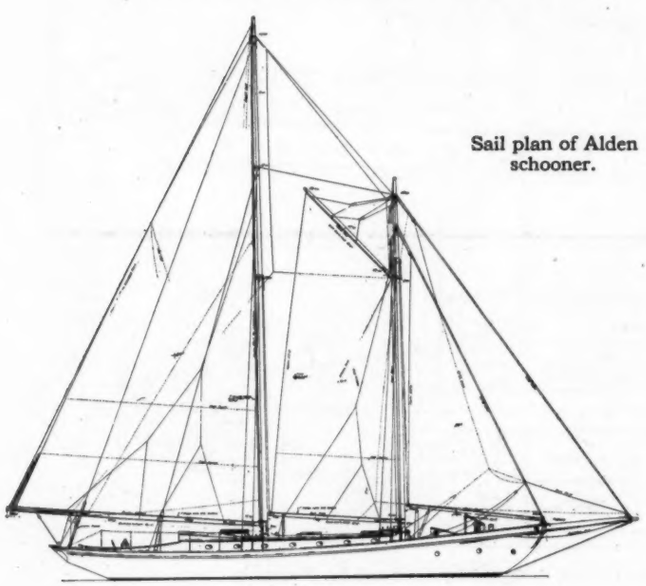
Below decks are found crews' quarters for four men, a large galley, and sunken deckhouse for use as a living and dining room. Aft are two double staterooms, owner's bath room and guests' toilet room. The staterooms have built-in four-poster beds. Panel work is eliminated in favor of 5-ply bulkheads which are moulded and delicately striped to get a tasteful appearance.

Twin Winton 300 h.p. motors will develop a cruising speed of 25 m.p.h., while all equipment is most modern and complete.



Accommodation plan of the 75-foot express cruiser described above.

A Shoal Draft Schooner for Use in the Gulf of Mexico

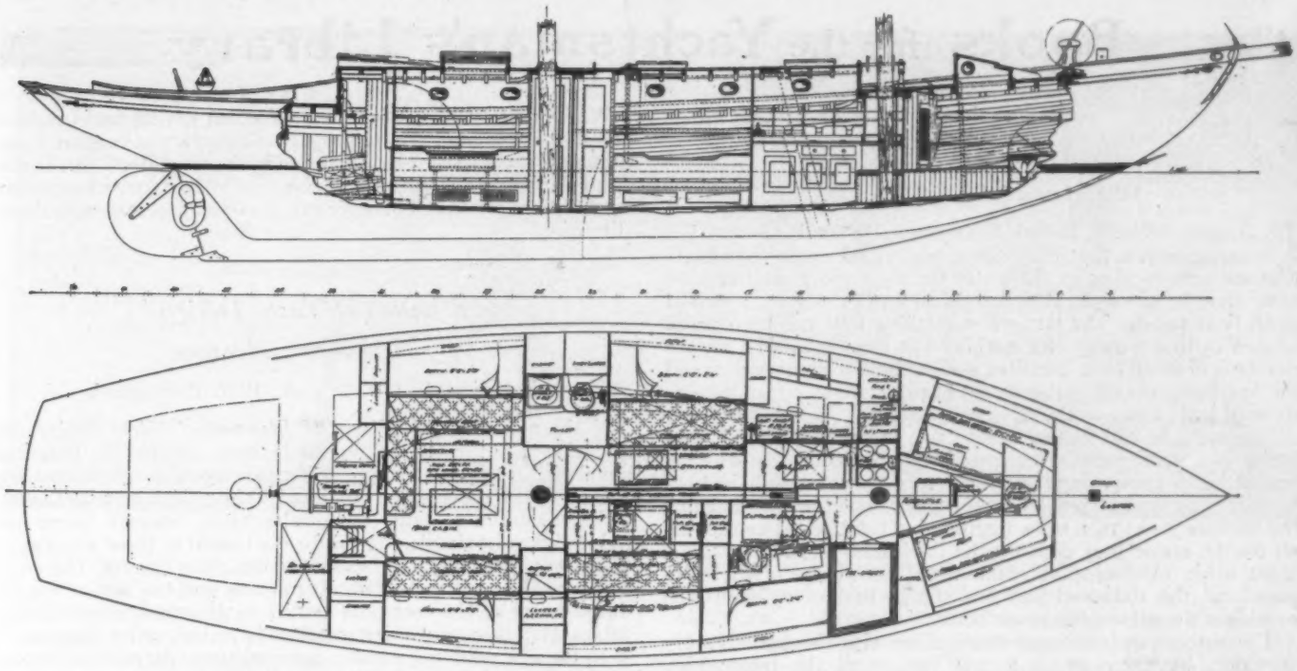


Sail plan of Alden schooner.

THE accompanying plans from the board of John G. Alden show an able schooner of moderate draft which is under construction at the yard of Goudy & Stevens, of East Boothbay, Maine, for Benjamin Clayton. Her home port will be Galveston, and she is to be used for general offshore cruising in the Gulf of Mexico, though she may cruise a bit in northern waters before proceeding southward. Her dimensions are: l.o.a. 59′; l.w.l. 45′ 6″; beam, 16′ 6″; draft, 4′ 5″; sail area, 1665 sq. ft.; total ballast, 25,000 pounds.

The construction is quite heavy, and her designer states that he considers her as able and comfortable as a keel boat of the same length. The accommodation plan shows a good saloon aft, toilet room, owner's double stateroom, passageway stateroom sleeping two, a very large galley, and a single stateroom which may either be used by the owner or captain. Forward are comfortable accommodations for two or three paid hands.

The 4-cylinder Red Wing motor is expected to develop a speed of 8 miles an hour, while she should show good speed under sail, especially with lifted sheets. The mainsail is of moderate size, while the foresail and jumbo are large, a good combination for heavy weather.

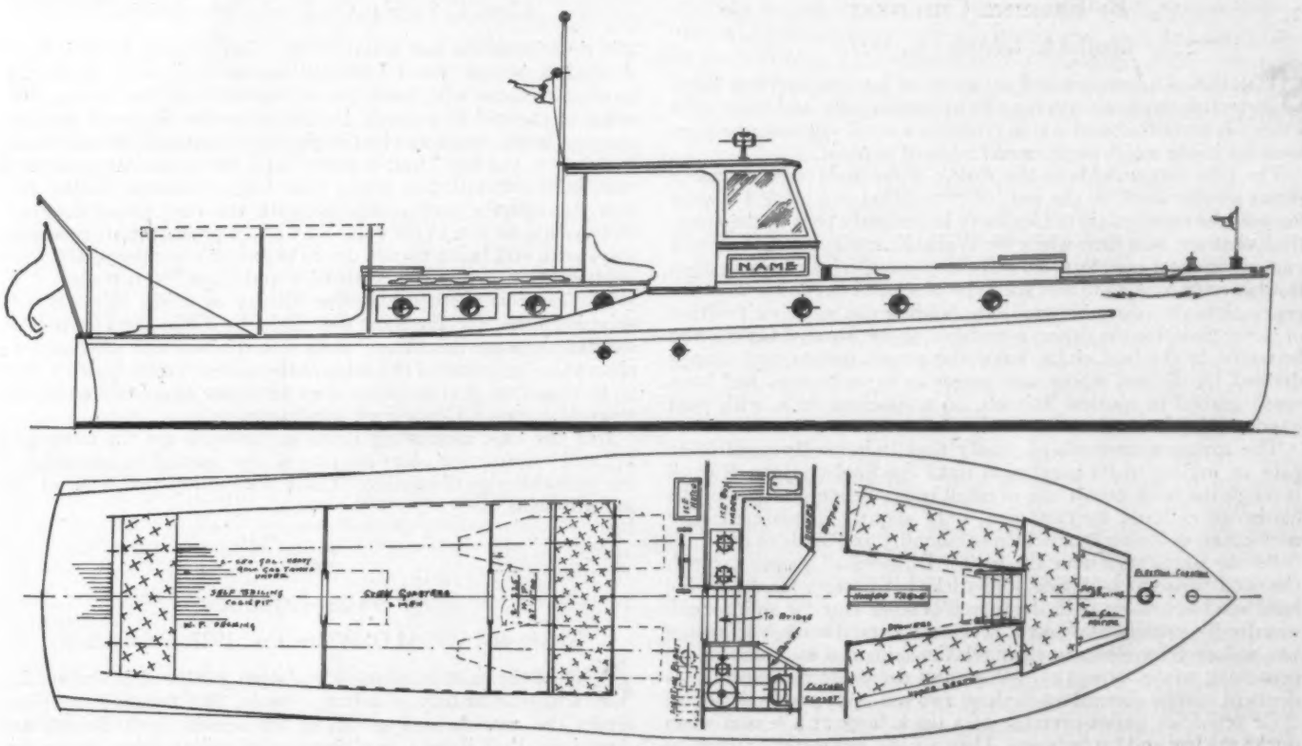


Inboard profile and accommodation plan of shoal draft Alden-designed schooner described on foregoing page.

A 45-Foot Twin Screw Commuting Yacht

THE plans below show a 45-foot twin screw commuting yacht now being built by the Wheeler Shipyards, Inc., of Brooklyn, N. Y., who build both stock and custom built craft of various models, some of which will be exhibited at the New York Motor Boat Show. She is of the raised deck type, with enclosed bridge, and has a small observation cockpit forward and a larger cockpit aft. A pair of 225 h.p. motors, installed amidships, are expected to deliver a speed of 25 m.p.h. or better.

The accommodations below decks for the owner and guests are forward, with four berths in the saloon. A fair sized galley is abaft the saloon to port and toilet room to starboard. Crew space for two men is found abaft the 'midship engine compartment, under the trunk cabin. All engine controls are handled from the bridge deck.



Plans of the twin screw commuter designed by the Wheeler Shipyards.

Books for the Yachtsman's Library

Sea Legs

By Alfred F. Loomis

D. Appleton & Co., 1927. $2.00.

IN *Sea Legs* Alfred F. Loomis has given to the coming generation a sea adventure that will make a big appeal to the youngsters who are now turning to the water for their sport, while at the same time he places in their hands an authoritative manual of small boat sailing. The latter is something that has been much needed in this country, for nothing has been published on the elements of small boat handling and sailing for many years, and the few books on this subject still in print are so out of date as to be of little value to the novice.

The story in *Sea Legs* concerns two boys making their first cruise in a small yacht. In charge is an old and crusty sea-dog, Jem Adams, from whose salty conversation and skill in boat handling his young crew learns all there is to know concerning the various yacht rigs, sails, rigging, and the like. After shoving off on the cruise they pick up the intricacies of boat handling, chart work, marline-spike seamanship, knowledge of the compass, and the thousand and one things that every man who considers himself a sailor must know.

The author has been most clever in weaving through his story — which, by the way, is a real yarn — all the information usually presented in textbook form. Himself a yachtsman of wide experience, the information he imparts is authoritative, accurate and clearly put, so that the novice, if he absorbs all there is in the book on yacht handling and seamanship, will find his path much easier when he steps aboard a boat. A thorough knowledge of the nomenclature of the sailing yacht and the theory of sail handling and trimming will not only give him confidence, but will save him much time in acquiring the necessary experience afloat, which alone makes for proficiency. The book is a real contribution to a subject in which the youth of the country is vitally interested.

H. L. S.

The Riddle of the Sands

By Erskine Childers

Charles E. Lauriat Co., 1927.

STORIES of adventure and mystery, of intrigue and free lance detective work, always have an appealing ring, and when such a story is woven around a true cruise in a small sail boat the combination is one which yachtsmen find hard to resist.

The tale that unfolds in the *Riddle of the Sands* is a record of secret service work on the part of two yachstmen along the sand flats on the north coast of Germany in the early part of the twentieth century, at a time when the World War was thought of only vaguely in most quarters. To call the two participants yachtsmen is a bit erroneous. One was the type of small boat sailor who, for generations, has done his part in upholding the maritime position of Great Britain; the other, a member of the Foreign Office, who belonged to the best clubs, knew the proper people, and always dressed for dinner, whose sole career as a yachtsman had been spent garbed in spotless flannels, on a spacious deck, with paid hands to do the work.

The mystery unravels so slowly that it is hardly possible to gain an inkling of its conclusion until the final chapter. But all through the book goes a tale of small boat routine — a tale of the hardships endured by two men, only slightly acquainted with each other, quite antagonistic in personality and mode of life.

As the pages turn over the little "Dulcibella" gropes through the sand banks at high tide, and sticks her bottom planks on the hard sand at low — all in the search of some clue for an intended murder by professional secret service agents. Through it all the two sailors grow closer in their relationship, and each day of approaching winter brings the solution of the problem nearer. Incidents of humor abound when these two self-appointed spies mask their activities under pretense of a duck hunt at a season when ducks are few and far between. They are in "hot water" almost as much as in the cold gray seas of the North Sea.

While the tale is one of pre-war efforts at spying, an introduction and epilogue of strong propaganda detract somewhat from the tale of sheer adventure unraveled in the story itself. But thesis or no thesis, this *Riddle of the Sands* should hold many entertaining and even amusing hours for every yachtsman, swivel chair or otherwise.

J. G. Stone.

Elements of Yacht Design

By Norman L. Skene

Yachting, Inc., New York, 1927. Price $3.50.

IN the new (fourth) edition of *Elements of Yacht Design* the author has turned out, for the layman, and for the practical naval architect as well, the most complete book on this interesting subject that has ever been published. While naval architecture is, in its essentials, a highly technical subject, Norman Skene has reduced it to its simplest terms for the benefit of those who desire to know something of the science of designing yachts. The rudiments of the art are not difficult to grasp and the author has reduced much of the technical matter to diagrams, curve sheets, tables, etc., thus explaining graphically as well as by the text.

In the new edition are many new diagrams, the result of recent work and research, much fresh material on the new rigs that have recently come into use, and a chapter on model yachts that will be of great value to those interested in this branch of designing and building. There are chapters on displacement, and the methods of finding it, stability, lateral plane, sail plans, cruising yachts, racing yachts, hydroplanes, propellers, etc.

The methods described in the book are those in every day use by naval architects and designers, but are explained for the layman so that he may have an insight and a working knowledge of this most fascinating branch of engineering.

The Last of the Windjammers

By Basil Lubbock

Chas. E. Lauriat Co. 2 vols. Price $15.00.

IN describing the last stand of the windjammers in their fight against steam, Basil Lubbock has given a book of intense interest to those who knew the sailing ship and the sailing ship sailor of the last fifty years. Beginning in the Sixties of the last century, when steam was just beginning to threaten the sailers, he shows how the big "four-posters" and the great cargo carriers were built and sailed to retain their hold on certain trades, and how successfully they competed with the new power for over forty years. As late as the early part of the present century sailing ships were still being turned out in reasonable numbers, and were holding their own in the Australian and Cape Horn trades.

The book is a comprehensive history of ships, skippers and shipping lines, for the most part British. While the Down East wooden ships are mentioned, their record is nowhere near as complete as is the record of the ships of the author's own country. It is to be regretted that someone does not come along and write the story of our own Down East windjammers.

Not the least interesting items in the book are the numerous sail and construction plans of many of the fast and famous ships of the period under discussion. It is a book every real lover of the sea will want.

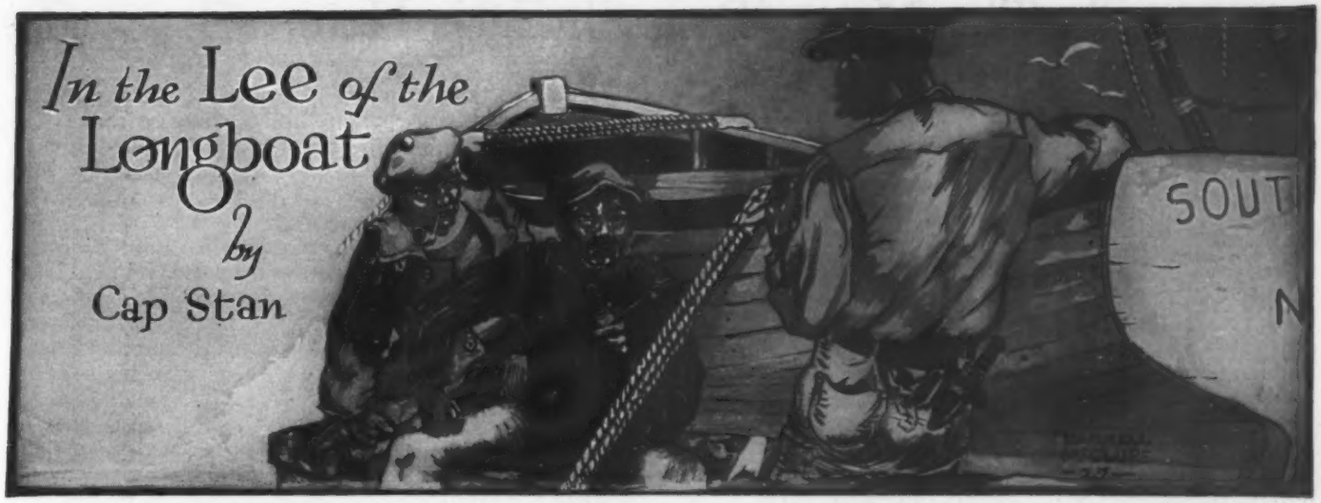
Sail

By Basil Lubbock

Kelvin and Wilfrid O. White, Co., 1927. Price $25.00.

ONE of the most interesting books yet published in connection with the history of sailing vessels, *Sail* treats comprehensively the records and annals of 30 vessels, both British and American. Well known as a historian of sailing ships, the author

(*Continued on page 104*)



JUST how far the jib-headed rig will progress as regards cruising craft is still a question, but that it has made remarkable progress in a very few years none can deny. *Sowitasgoht* crossed the Atlantic with one. Gerbault, in *Firecrest*, cruised many thousands of miles without a gaff, without any trouble so far as we know. The last three fleets to race to Bermuda have been led across the line by jib-headers, though in two cases a gaff-header won out on time allowance. *Duckling* and *Teal*, between them, cleaned up the Cape May Race, and *Duckling* kept right on after the finish and made a round trip to Bermuda. *Windjammer* won the Brooklyn Challenge Cup, and *Alert* cleaned up Class B in the Gibson Island race. All in all, three-cornered sails have been doing pretty well, and it will be interesting to see what 1928 develops.

The staysail schooner rig, which at one time threatened to put schooner foresails completely out of business, has failed to make much of an impression, except on the big racing schooners. Tom Bowes has worked out some deviations from the first staysail rigs which apparently overcome some of their disadvantages. I'd like to see some of his rigs tried out in competition, say in the Bermuda Race. If they're as superior to the gaff foresail as Tom claims, the sooner we find it out the better. A competitive jaunt of 600 miles should go a long ways towards telling the tale.

* * *

My paragraph in the last issue relative to the prospective raise in insurance rates on yachts brought an interesting letter from the president of a well known boat building concern, and aired a slightly different aspect of the situation. This is the habit of some yachtsmen, who have insurance adjustments to make, of trying to persuade the builder to survey damages and make estimates of cost abnormally high so as to include costs of ordinary upkeep work, new equipment, etc. Of course, this is dishonest, and not only tends to raise rates, but hurts the game in general. The boat owner gets everything possible included in an insurance job, and the shipyard owner co-operates beautifully — it's money in his jeans — and the insurance companies suffer. When they tire of suffering, the rates will go up. Apparently, that time is close at hand, so stand by to dig down, or cough up, whichever you prefer.

* * *

That article in the last issue by George Wales, on the painting and decorating of yachts, struck the right note. A plain white or black hull is all right, but gets tiresome when every boat you meet is painted the same way, which has been the way of things up until quite recently, when a few daring souls have sallied forth with green, red, blue and yellow topsides on their craft, or a vermilion waterline. In fact, a couple of years ago when I blew into Marblehead the entire fleet of Class S boats was painted in different colored stripes, more or less as *Kotick* was described. Some of them were mighty attractive, while others were eyesores. Of course, painting stripes and decorations on boats will cost a little bit more — more than on a big commercial windjammer, where the paint is slapped on willynilly, and not applied in neat, yacht-like style. But it ought to be well worth the difference. Let's have more color and decorations!

* * *

Every time one of my hunches fails to materialize I get a batch of missives, most of which tell me what a bum prophet I am. But seldom, if ever, does anyone come through and acknowledge the fact when I hit the bullseye; wherefore I take the liberty of calling the attention of certain critics to the fact that my prophecy regarding reduction gear motors, made a year or so ago, has just about been fulfilled. The numerous boats successfully equipped with reduction gear motors, and the increasing number of engines appearing with gears, just about decides the argument. So ends.

* * *

EXTRA! EXTRA! How to Win the Bermuda Race! That, or something like it, should have been the caption to attract buyers to that 47-foot water line yawl advertised in the last issue, "made winter ocean run Boston to Miami, making 15 miles per hour, sail alone." The broker who advertised this flyer solemnly assures me that the owner positively made the statement, in writing. My answer being merely to quote Sherlock Holmes's well-remembered demand: "Quick, Watson! The needle!"

* * *

If these newly-formed outboard motor associations have been formed for other purposes than to promote races, they can do no better than clear up the situation regarding an outboard-equipped boat being a motor boat, and having to carry all the equipment required of a motor boat. Of course, outboards don't carry such equipment, or at least, only semi-occasionally. And semi-occasionally, some poor bird gets hauled up and fined $500 or less, and has a deuce of a time getting the fine remitted, in whole or in part. Now, an attorney in Washington writes me that he argued so well for a client that he succeeded in getting all action stopped, which is decidedly different from admitting breaking the law, and then trying to beg off. Will the outboard associations please get busy?

The Motor Boat Show is Here

BOATS, big and little, power and sail!

Engines of every type and size, from little portable outboards to big Diesel power plants!

Marine equipment for the yacht, from truck to keel, above and below decks!

Paints, varnishes, marine compounds to keep the boats smart and preserve the wood!

All these, and more, were found in the Grand Central Palace when the doors were thrown open, January 20th, on the Twenty-third Annual Motor Boat Show, and the public admitted to an exhibition that reached high water mark in the production of pleasure craft.

Ever since it was inaugurated the Motor Boat Show has been a "users" Show, not a dealers Show. In its early years it had to "sell" the idea of pleasure boating to the public. This was not so hard to do, but now that the public has become "educated" and boat wise, it is even more interested than before in these annual exhibitions. The Show has been educational and stimulative also to the naval architects, the boat and engine builders, and the manufacturers of equipment. For nothing so makes for progress as competition. The result has been a steady advance in type and refinement of both boats and engines — an advance as marked in its own way as that in the automobile industry.

This year the Show required all three floors of the Palace, and more space could have been used if it had been available. The ground floor was devoted entirely to boats, except for a few Diesel engines too heavy to lift to the second floor, which was given over to the marine power plants, and at one end, to some of the smaller high-speed, light-weight boats.

On the third floor was found an unusually comprehensive collection of marine equipment, and yacht and power boat accessories, without which no craft is complete. In the following pages will be found a description of many of the outstanding exhibits that will be of interest to those who were not fortunate enough to get to the Show.

"There is a wide selection of doodads for the yacht."

In the Good Old Winter Time

WHEN icicles are hanging
O'er frosty window panes,
And noisy blinds are banging
And snow-drifts fill the lanes,

'Tis just the time to reckon
Where you'll acruising go
When distant harbors beckon
And summer breezes blow.

For winter'll soon be flitting,
His moorings feel the strain,
And you must think of fitting
Your craft to sail again.

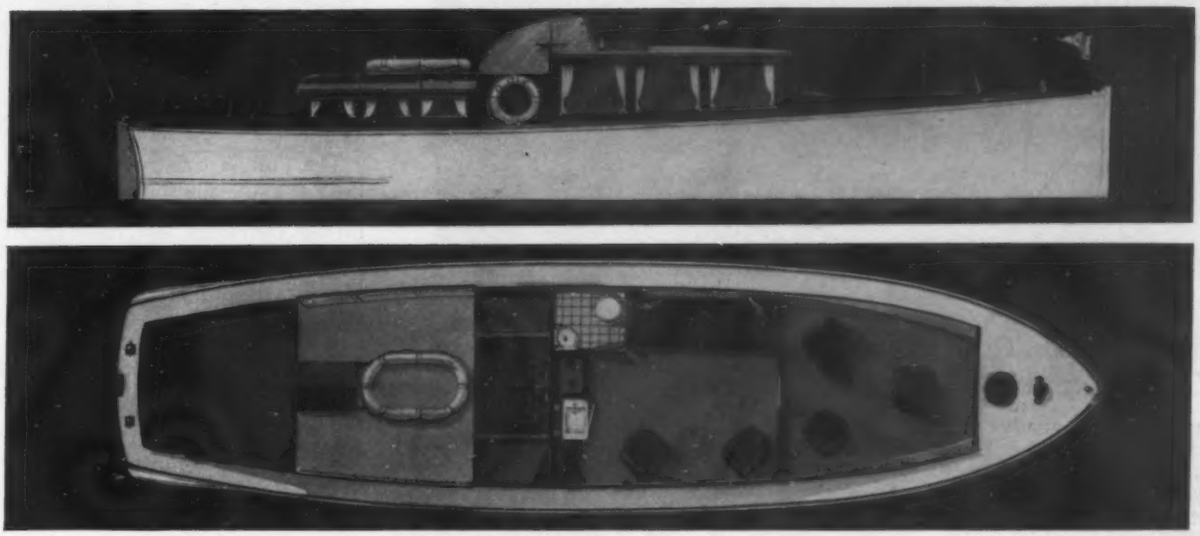
In catalogs and folders
Of anchors, blocks, and logs,
Of paints to charm beholders
And horns to blow in fogs

There is a wide selection
Of doodads for the yacht,
'Twill take but slight reflection
To find you need a lot.

And, tho' it may be early,
You'll get a goodly kick,
With sleet and snow still swirly,
A summer's voyage to pick.

H. J. PECK

Boats, Engines and Equipment Seen at the Twenty-Third Annual Motor Boat Show



The A. C. F. 45-foot twin-screw "commuter."

Two A. C. F. Cruisers

Of the cruisers at the Show, two that will attract the attention of yachtsmen who know boats are the pair exhibited by the A. C. F. Company, who maintain a show room in New York City the year round. Of the several models of the A. C. F. line, the two exhibited make a widely different appeal, one being a 30-foot double cabin cruiser, and the other a fast 45-foot twin screw "commuter." Both of these boats show many unusual features for their type. The smaller model has a large cabin forward, a roomy cockpit amidships, and a smaller cabin aft, under the after deck. She will sleep six persons comfortably, and what is more, will have enough room to take care of them during the day as well.

The larger boat is essentially a day cruiser and hence has no real sleeping accommodations in the owner's quarters. There is, however, a luxurious cockpit and a most comfortable and roomy sedan cabin fitted with a buffet at the after end, in which is concealed a galley for preparing breakfasts or lunches en route from country to city, or vice versa. The power plant, located under the after trunk cabin, will consist of two 200 h.p. Hall-Scott motors, producing a speed of 27 m.p.h.

As an example of careful designing and building, high class workmanship and excellent appearance, these boats create most favorable comment. S. Clyde Kyle, New York representative of A. C. F., and Bruce Whittier will be in charge of the exhibit.

A smaller A. C. F. boat is the 30-foot double cabin cruiser.

A Banfield 32-Footer

The Banfield Sea Skiff Works, of Atlantic Highlands, N. J., exhibit the latest development of the well known sea skiff type in a new 32-footer, which will appeal to those wanting a seaworthy craft capable of going anywhere, and yet one with the comforts and finish of a yacht.

The new Banfield "32" is the latest development of the popular sea skiff.

The popularity of the present day Banfield Sea Skiff is due to the unusual qualities to be found in these famous boats. They are not fair weather craft but are capable and rugged, and are built to withstand the hammering of the roughest seas. This has earned them the name of the "greatest sea boats of our times." The fundamental principle of the design of the Banfield Sea Skiff has been a development covering over a century.

The other dimensions of this 32-footer are: beam, 8′ 6″; draft, 30″; and headroom in the cabin, 5′ 10″. They can be driven at high speeds if given the power.

In the Banfield "32" you have all the comforts and accommodations necessary for an extended cruise. The cabin sleeps four, while the after cockpit seat and motor locker can accommodate two more.

The Elco "Fifty," in which a deckhouse has been incorporated.

Elco Exhibit Contains Three New Models

In point of the number of boats exhibited, and also in size, the display of standardized models of the Elco Works, of Bayonne, N. J., and New York, heads the list at the Grand Central Palace. The Elco 1928 models, which will be seen at "Port Elco," in the southwestern corner of the Palace, are as follows:

Model	*Length*	*Beam*	*Draft*	*Power*	*Speed*
Twenty-Six	25′ 11″	8′ 8″	2′ 3″	27	10
Cruisette	34′ 0″	9′ 0″	2′ 6″	48	13–14
Thirty-Eight	38′ 0″	10′ 5″	2′ 10″	125	14–15
Forty-Two	42′ 9½″	11′ 11″	3′ 0″	125	12–13
Fifty	50′ 4″	12′ 9″	3′ 0″	250	14–15

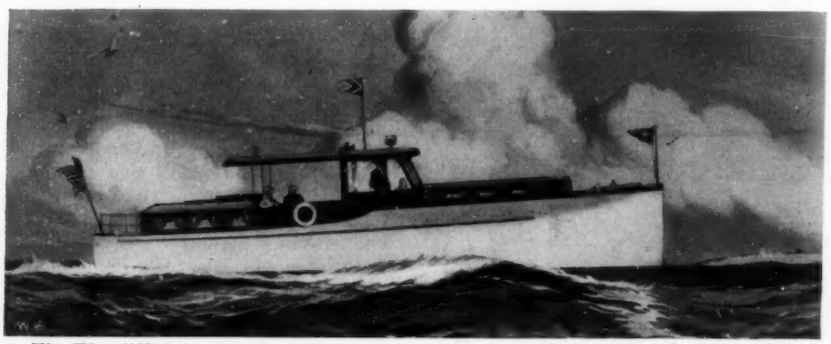
The "Twenty-Six" and the "Cruisette" are models continued from previous years, with improvements. The three larger boats are new designs developed from previous models.

In designing and producing the 1928 Elco boats, certain fundamental requirements, necessary as the basis of a successful product of this nature, have been continually kept in mind. Upon examining these craft it will be apparent to any yachtsman that a well ordered consistency of design, construction and equipment has been followed in each of the various models, giving evidence of practical experience on the part of the designers, and the experience and opinions of many hundreds of owners of Elco boats.

As to living accommodations, it is a fact that in the use of the average motor boat or small yacht the greater part of the time, by far, is spent above decks, particularly if the above deck arrangements are spacious and comfortable. With this thought in mind all models of the Elco Co. are laid out with a generous proportion of usable space above decks, and at the same time the maximum of convenience, comfort, and safety.

In the "Twenty-Six" and "Cruisette" models the cockpits are exceptionally large and well arranged, being protected by efficient windshields and permanent awnings, and with convenient side curtains enclosing the whole. Thus, during stormy or cold weather, the cockpits really become an integral part of the cabins, with all living and working parts of the boats enclosed. The bridge deck on the "Thirty-Eight" is surprisingly large and convenient and is exceptionally well protected. In the "Forty-Two" and "Fifty," deckhouses have been incorporated.

Mechanically, no pains have been spared in order to produce a product embodying the utmost in reliability, efficiency, long life and freedom from frequent repairs. The "Twenty-Six" is equipped with the Elco Gray 6–40 engine and the "Cruisette" with the Elco-W. S. M., which has been used in this model, with conspicuous and unqualified success, for several years. The larger boats are fitted with the Elco six-cylinder engine.



The Elco "Thirty-eight" offers maximum accommodations for a boat of this size.

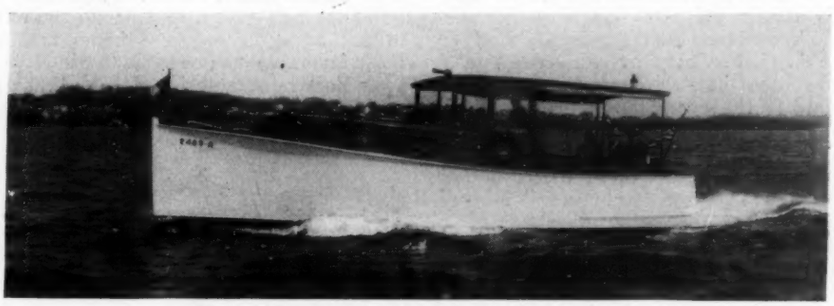
A New Chenevert Cruiser

The *Corsair*, a new standardized cabin cruiser, 30′ over all, with beam of 9′ 3″ and draft of 2′ 5″, will be exhibited by Chenevert & Co., of Detroit. A 6-cylinder Chrysler Royal marine engine gives the *Corsair* a cruising speed of 12 m.p.h. The Chrysler reverse gear and Delco-Remy electric starting and lighting system are part of the power plant equipment.

The hull is constructed with a one-piece selected white oak keel, white oak frames and mahogany planking. Special bronze fastenings are used throughout and deck hardware and fittings are of bronze. The cabin trunk and coamings are of mahogany and mahogany grab rails are fitted outside.

A well arranged and spacious cockpit assures unusual comfort for day cruising. Across the stern is built an exceptionally large athwartship seat, fitted with mahogany lazy-back and leather cushion. Under this is a lazarette for life preservers, dock lines and luggage.

The cabin and galley are located just forward of the cockpit, under the trunk. The cabin arrangement provides two built-in lower berths, with storage space beneath, and with back rests hinged to swing upward to make two upper berths, thus offering adequate sleeping accommodations for four persons. Forward of the berths are two clothes lockers. An exceptionally large wash room is located forward of the cabin and is separated from it by a bulkhead and swinging door. The galley, equipped with a cork lined ice box, a two-burner alcohol stove, and a white enamel sink, is at the after end of the cabin.



The new Chenevert 30-foot standardized cruiser.

A New 23-Foot Albany Runabout

A 23-footer whose layout shows a new treatment of interior accommodations, will be displayed by the Albany Boat Corporation, of Watervliet, N. Y. The features of this boat are a demountable engine housing of close fitting mahogany, providing complete accessibility to all engine parts, and a walk-way between cockpits. The space devoted to the cockpits has been increased over that allowed in other models to a point that will make for comfort, while the weight, as compared to that of the usual 23-footer, has been reduced, permitting the carriage of a heavier passenger load. This model is powered with a Brennan 4 x 5½-inch 6-cylinder motor.

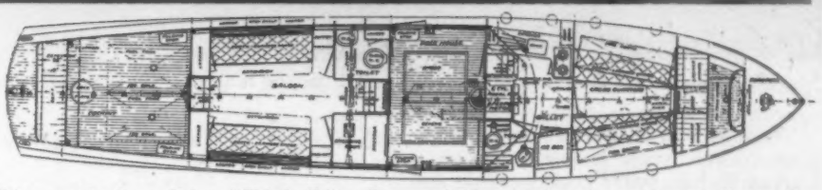
A New Consolidated 50-Footer

The Consolidated Shipbuilding Corporation, of Morris Heights, New York City, exhibit in Space A–3 a fine product of their plant on the Harlem River in a 50-foot day cruiser. This is a larger boat than this company has shown at the Palace in recent years and is unusually handsome in appearance and finish. In the eyes of the boat, forward, there is a small cockpit sheltered by a glass windshield. Abaft this, under the raised deck, are the quarters for the crew and the galley, with steps leading to the deckhouse living room, which is roomy and comfortably furnished. Below this deckhouse is the engine room, containing a Speedway motor. Under the trunk cabin is a large saloon with wide transom berths, toilet and dressing rooms, while aft is a large sunken cockpit, the whole layout being well arranged for the use intended — daily runs and short cruises.

In addition to this boat, and some yacht launches and tenders, the Consolidated Corporation will exhibit six models of their line of famous Speedway engines.

It is expected that the new model which Speedway engineers have been developing for some time past will be completed and exhibited to the public, in Space S on the second floor. This new model will be a 6-cylinder, L-head type, developing 180 h.p.

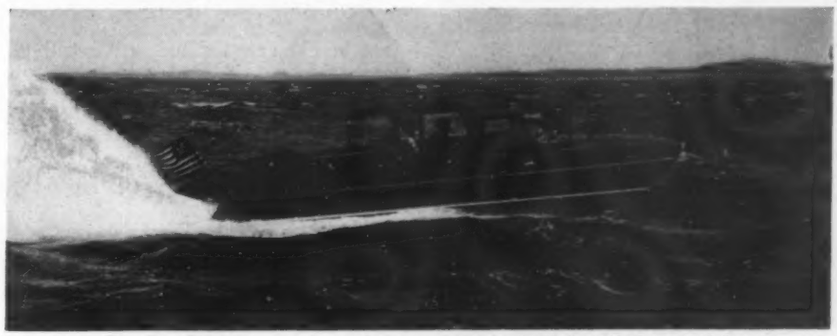
Mr. John J. Amory, President, will be in charge of the exhibit, assisted by Messrs. W. J. and W. K. Parslow, Bruce Scrimgeour, Samuel Parslow, A. Christen, J. S. Potter, H. W. Patterson, W. E. Baldwin, John E. Lowery, W. A. Roos and W. G. Wood.



This year the Consolidated Shipbuilding Corp. exhibit a 50-foot day cruiser similar to the one shown above.

Sea Sleds

The Sea Sled Corporation will have a complete exhibit of the various successful and ready to answer all questions on design, rig, etc.



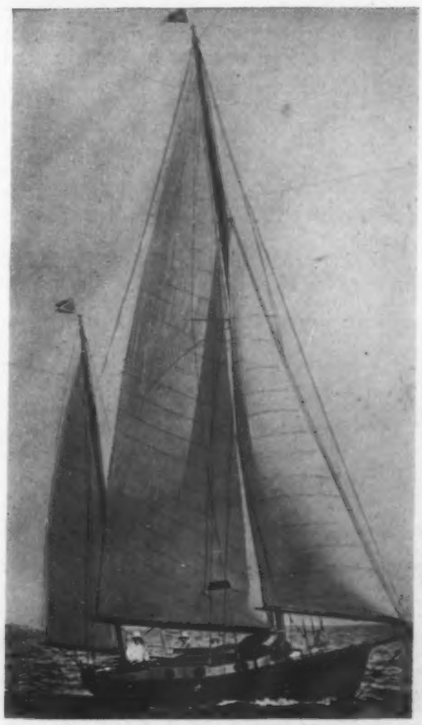
The Sea Sled is a good rough water type. A 28-foot Sedan model.

John G. Alden

Sailing men and power boat men will alike find much to interest them at the exhibit of John G. Alden, which will be located at booth No. 8 on the third floor of the Palace. Here will be found complete plans and specifications of Mr. Alden's latest designs, including a number of schooners now building for spring delivery. These schooners represent in nearly every instance refinements and improvements in design over the highly successful Alden boats of last season.

Photographs and complete descriptions of used boats available may also be had at the Alden exhibit.

Both Mr. Alden and Mr. F. E. Alexander will be in attendance at the Show,



An Alden 34-foot cruising auxiliary yawl.

models of this unusual type of hull. Among those to be shown will be Model 28 Sedan, with 200 h.p. Hall-Scott motor; Model 23 Runabout, with an 80 h.p. Buda motor; Model 16, a double cockpit boat for outboard motors; Model 13, a runabout for outboard motors; and a special racing hull whose details will not be made public until show time.

Cape Cod Sail Boats and Launches

The Cape Cod Ship Building Corporation, of Wareham, Mass., show a very comprehensive line of their row boats, small sailing craft and power boats, to which have been added two new hulls for outboard motors, one of which is a racer. The complete line shown is as follows:

10-, 12-, and 14-foot row boats; a 14-foot decked sailboat; a 15-foot Junior sailboat; an 18-foot Baby Knockabout; a 20-foot special dory launch; a 20-foot runabout and 4 specially built boats for outboard motors, the Exocetus, the Eureka, a 15-foot seagoing outboard motor boat, and a 14-foot outboard motor boat.

The last four models will be sure to appeal to the ever-growing army of those using outboard motors, as they are suitable for various types of service.

Whistler—She Floats on a Heavy Dew

To those who are concerned with a means of travel over marshy or uncharted stretches, and over narrow rivers and inlets, the stock model *Whistler*, exhibited by Free Bottom Craft, Inc., will be of particular interest. Air driven and air steered, it is claimed that the *Whistler* literally "goes anywhere." The boat is fitted with a patented combination air and water rudder which rides over any submerged obstacles at slow speeds, and is automatically carried completely out of water at speeds over 15 miles per hour. At rest, the *Whistler* has a draft of nine inches; at full speed it runs with a draft of less than five inches of water.

Whistler, a Free Bottom craft, showing small turning radius.

A Free Bottom craft running through weeds on Great South Bay.

The model on display, a five-passenger open cockpit type, is powered with a Curtiss 90 h.p. water cooled engine and attains a speed of 30 m.p.h., or with a Fairchild-Caminez 135 h.p. air cooled engine capable of a 40 m.p.h. speed. The equipment includes electric self-starter, electric running lights, mufflers, and a specially developed propeller which reduces noise to a minimum. As seaworthy as any boat of its size and speed, the *Whistler* offers a means of safe and rapid travel under conditions that would ordinarily be considered unnavigable.

Faybow Motors and Boats

The Fay & Bowen Engine Co., of Geneva, N. Y., will have two distinct exhibits, one on the main floor, and the other on the mezzanine floor. In the main floor exhibit will be found three new runabouts, all up to the usual Faybow standards. The first is a 22-footer, all mahogany, upholstered in all blue leather, and powered with a Faybow-Continental 6-cylinder motor, giving a 25-mile speed. The same boat, with an eight-in-line motor of the same make, will do well over 30 m.p.h. The second boat will be a 27-ft. double cockpit runabout, all mahogany, round bilged, which will do 25 m.p.h. powered with a Faybow LC-61 6-cylinder motor. The third boat will be a new 16-ft. mahogany outboarder, with seats and lazybacks upholstered, good for speeds between 15 and 20 m.p.h. according to the size of the power plant.

A complete line of Faybow standard marine engines and three of the new Faybow-Continental conversions will be shown on the mezzanine floor.

Speed-Craft Runabouts and Racers

At the Motor Boat Show, Speed-Craft, Inc., will introduce a brand new type of outboard motor boat which, it is claimed, will upset all previous conceptions of this class of small craft, and prove one of the big attractions at the Palace. It employs, in its design, several brand new principles of outboard motor boat construction which seem likely to warrant a production in hitherto undreamed-of quantities.

In appearance this new outboard motor boat, the Speed-Craft, is more like the standard type of high-class motor boat runabouts and less like the present type of hull used for outboard boating than any boat hitherto produced for use with a detachable motor. When outboard motors were first introduced they were regarded as a substitute for oars. Now their use has expanded into the real motor boat field. Much of the progress so far made, however, has been in the motors. The builders of Speed-Craft believe the time had come when radical improvements were called for in the boats themselves.

The Speed-Craft will be built in three distinct models, one, a five-passenger runabout with speeds up to 35 miles an hour employing the new higher powered type of motor; another, a remarkably light, low-priced and extremely capable 11-foot yacht tender or general utility boat; and the third, an out-and-out racing boat, which it is believed will shatter some of the existing speed records. This latter craft will follow airplane practice in design.

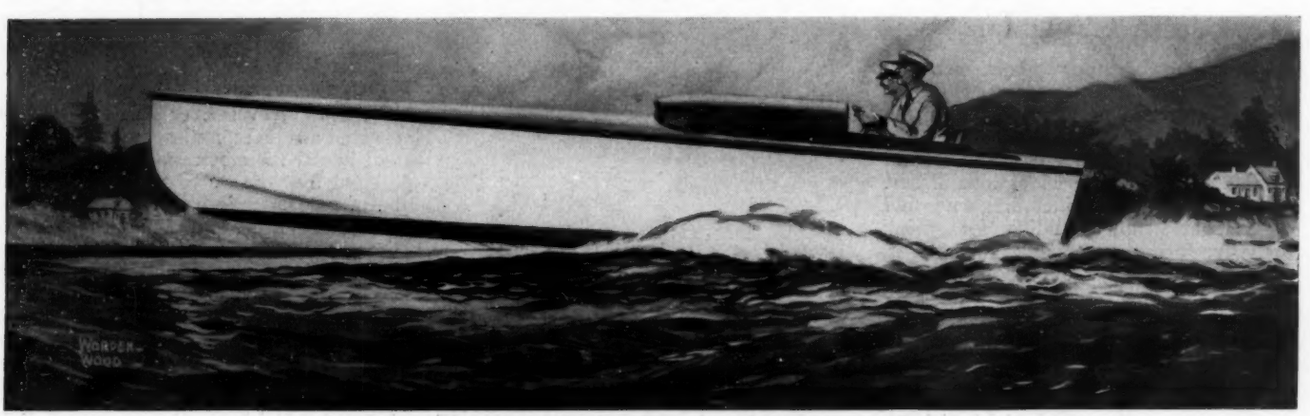
It is predicted that the outboard motors for the coming season will create speeds in excess of 40 miles an hour. This will bring an element of danger into the fast growing sport if the boats in which these higher powered engines are used are not carefully and scientifically designed. It may be mentioned concerning the Speed-Craft, that it is a step hydroplane, that the driver can face forward at all times while steering and adjusting his motor, and that its design and sturdiness will allow it to go anywhere and in any weather that any small boat should be out in.

The new Speed-Craft to be seen in the Show are all of the highest type of yacht finish. They are located in Block P, right alongside of the display of the Johnson Motor Company. There Mr. Farmer, the designer, will be glad to meet any visitor interested in seeing how the ideas back of this new craft have been worked out in actual practice after exhaustive tests on the water.

After their initial appearance at the Show, Speed-Craft will be sold through dealers all over the world.

A Cedar and Mahogany Tender

The Rockland Tender & Rigging Co., of Boston, has brought out a new 10-foot cedar and mahogany tender which will be on display at the Show. Built of good clear cedar and mahogany, this tender is copper riveted and bronze screw fastened throughout, with leathered spruce oars, and bronze oarlocks and hardware. A specially designed 12-foot boat will also be shown.



A 13-foot racing model Speed-Craft, powered with an outboard motor.

The new Chris-Craft 24-foot runabout, equipped with 120 h.p. Chrysler Marine Motor, which gives a speed of 35 m.p.h.

New Chris-Craft Models

Six models of runabouts and two outboard motor boats will be exhibited by Chris Smith & Sons Boat Co., of Algonac, Mich., in Space "E." All these are new models, although they do not exhaust the list of new boats brought out by this firm for 1928, which totals eleven, exclusive of two outboards.

The smallest of the new models on display is a 22-foot runabout, equipped with a Chrysler Marine motor, 82 h.p., and capable of a speed of 30 miles per hour. In the Chris-Craft 26-footer four distinct models are represented — a 40-mile boat powered with the Kermath 150 h.p. motor; the same boat with a rakish looking sedan top; the standard 26-footer powered with the new 8-cylinder, 200 h.p., Chris-Craft motor, promising tremendous speed; a sedan runabout with the same power plant. The 30-foot Custom Commuter, equipped with a Chris-Craft Marine motor, with a speed of 38 miles per hour, is a model of luxury in fittings, equipment and workmanship.

The outboard hydroplane runabout is a racing type that promises plenty of action, while the 17-footer is a model that may be enjoyed with safety and comfort.

Bessemer Diesels

On the main floor of the Palace will be found the exhibit of the Bessemer Gas Engine Co., of Grove City, Pa. This will consist of an 8-cylinder Bessemer Diesel motor of the new water box type, with base and center frame of aluminum, and equipped with Bu-nite aluminum alloy pistons. This engine is of the same general type and appearance as the twin motors installed in the successful Diesel yacht *Comoco*, owned by R. W. Judson, of Detroit.

Elto's New Four-Cylinder Outboard Motor

One of the most startling announcements in the outboard field made at the Show is that of the Super Elto Quad — a four-cylinder, high speed motor. This engine is causing a great stir in the outboard world, for a motor of this power brings with it entirely new possibilities in speed and performance and comes at a time when interest in outboard motoring and racing is at its height.

The new Super-Elto 4-cylinder Quad.

The history of the Quad is interesting, for back of this motor are five years of experimenting, developing, perfecting. A smaller replica of this four-cylinder outboard was tried in service as early as 1922, easily driving the outboard hulls of that day to the limit of their speed capacity. In 1925 one of the smaller Quads was entered in a free-for-all outboard race in Seattle, and established what was then a world's record. Pending the development of faster hulls, Ole Evinrude continued his experimenting. More refined models, of greater power, were tested in service until today this motor reflects the experience gained by years of experiment and engineering achievement.

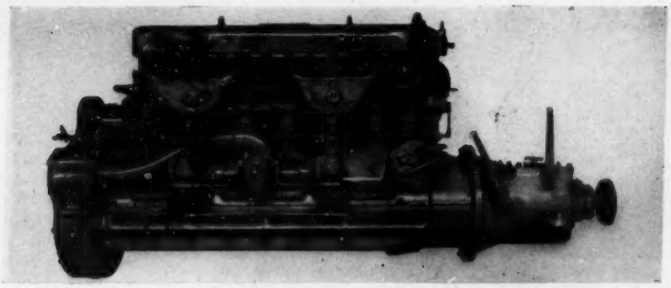
The Elto Company state that this powerful motor will spin into action with a two-inch flip of the flywheel and has made better than 35 miles per hour with a stock motor, muffler equipped, on a standard step-plane and with a 200-lb. operator, pointing to possibilities of speeds up to 40 miles an hour on special racing hulls.

The Quad is equally well adapted for luxurious runabout performance. It gives to the big staunch hulls of the family runabout type new usefulness and dependability, while furnishing speed heretofore attained only in out-and-out racers.

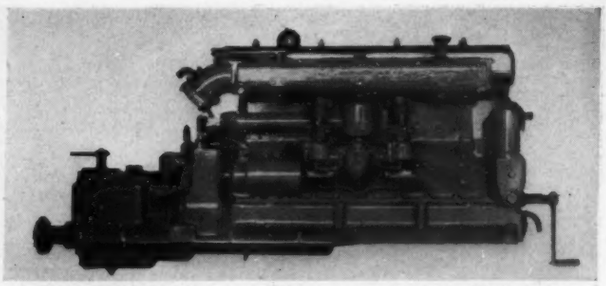
One of the outstanding features of the motor is its lack of vibration, for its four balanced cylinders give it a velvety flow of power that compares in smoothness with the eight-cylinder automobile engines of today. The motor averages 3,800 r.p.m. The fact that this represents 7,600 cushioned power impulses per minute or a total of 15,200 explosions from opposed cylinders firing simultaneously in pairs, is an indication of its smooth performance.

The Super Elto Quad is a high speed, high compression two-port motor, 2½" bore, 2" stroke. It has a piston displace-

With two passengers aboard the Elto Quad gives a speed of over 30 m.p.h.



Model G 200 h.p. Hall-Scott motor with sliding gear reverse.



Model HSR 100 h.p. 6-cylinder gear reduction Hall-Scott.

ment of 39.2 cubic inches, placing it in the open class for racing. A gear reduction of 24 to 16 is used between the motor and the propeller to secure the greatest driving efficiency. The weight is 92 pounds. Because of freedom from vibration, it can be used on the lightest and frailest racing hulls.

The new motor is equipped with dual carburetion and dual ignition, each system entirely independent of the other.

This new Quad is equipped with the Propello-Pump automatic cooling system. Propeller steering, streamline lower housing, and low-loss muffling are all-important features which contribute to the smooth performance of the motor. The dimensions are remarkably small — the width is no greater than that of any B Class motor, while the height, measured from the top of the bracket to the top surface of the flywheel, is about an inch greater than the C Class motors of 1927. The Quad will be available in two lengths — one driving depth will be for standard hulls; the other, 5″ longer, for hulls having exceptionally high transoms.

This new motor will be one of the centers of attraction at the Show.

Buda Motors

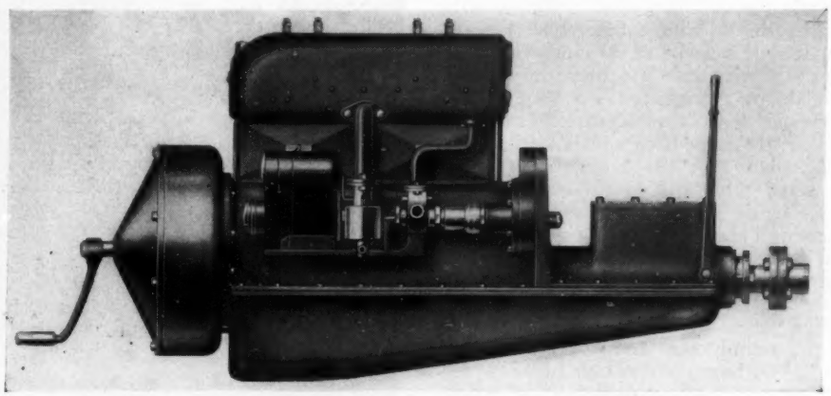
The Buda Co., of Chicago, will have an attractive exhibit on the mezzanine floor, which will consist of their well known line of gasoline motors, and a new Diesel motor. The gasoline line will include Model BM-6, 6 cylinders, 4 x 5⅛; BMA-6, 6 cylinders, 4⅛ x 5⅛; GM-6, 6 cylinders, with gear reduction. The new Diesel is of the full Diesel type, compressorless, solid injection engine, electrically started.

Hall-Scott Engines

The Hall-Scott Motor Car Co., one of the first manufacturers to market a successful reduction gear motor, will exhibit a complete line of Hall-Scott marine motors, of both 4- and 6-cylinder type, both with and without reduction gears, ranging in horsepower from 50 to 200, and incorporating many improvements for 1928. A few of the craft which have installed Hall-Scott reduction gear motors recently are the 98-ft. *Navigator*, of New York; *Pomander III*, of Boston; *Lorna Doone*, of Newark; *Chenal*, of Detroit; and *Roamer IV*, also of Detroit.

cycle gasoline motors, constructed in two, four and six cylinders, and ranging from 8 to 190 h.p. Two-cycle engines and a Model 416–A lower crankcase, showing reduction gear construction, will also be on display. Model R–50, which is a 50 h.p. three-cylinder Diesel with reverse gear, will be shown as a typical Mianus Diesel.

An exclusive feature of these engines is the Mianus Reduction Gear Drive — part of and integral with the power plant. This device gives a comparatively light and high speed engine with power enough to drive a fairly heavy cruiser even in rough weather. Mr. Paul A. Sperry and Mr. N. A. Holstrom will be in charge of the exhibit.



Model 416 A Mianus gasoline motor with 2 to 1 reduction gear.

Mianus Displays New Line of Motors

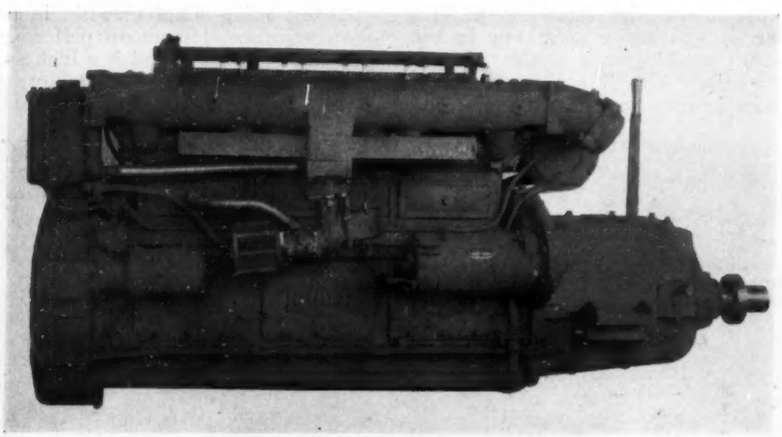
The Mianus Diesel Engine Co., of Stamford, Conn., will present at the Motor Boat Show, a new line of four-

Lux Systems for Small Boats

Two new Lux Systems, designed specially for runabouts, sea sleds and other small boats, will be introduced at the Motor Boat Show by Walter Kidde & Co., of New York. Similar to the larger Lux equipments, these systems are smaller, more compact, and lighter in weight.

A runabout equipment consists of a cylinder, remote control and piping system. The cylinder, containing the extinguishing agent, is easily installed in the engine space. The remote control box is fitted flush on the dashboard in the cockpit. It assures positive operation without requiring the operator to expose himself to the flames. The piping system is simple. Three short lengths of ½″ pipe with nozzles distribute the gas in the bilges and around the engine. Because of proper gas distribution the Lux System extinguishes large or small fires — inaccessible fires in the bilges, or fires that occur when the hatches are open.

In addition to this new small boat equipment, the larger Lux Systems will also be on exhibit.



Buda 6-cylinder model gasoline motor.

The 24-foot Hacker Baby Dolphin, powered with a Scripps Jr. Gold Cup motor, making 33 m.p.h.

Hackercraft In Some New Modes

Three new models of Hackercraft, similar in material, construction and workmanship, are announced for 1928 by the Hacker Boat Co., of Mt. Clemens, Mich. Two of these models, a 26-foot Dolphin Junior and a 24-foot Baby Dolphin, may be seen at the Show. The first, powered with a Scripps H-6 motor, makes 42 m.p.h.; the second, with a Scripps Junior Gold Cup Motor, makes 33 miles.

These boats reflect the very latest improvement in hull and motor design and maintain the well known Hacker reputation for quality. They are built of Honduras mahogany throughout; double planked bottom and batten seam sides; keel and chines are of one-piece oak; stem, one-piece mahogany; spruce bed timbers extend the entire length of the boat; framing is entirely of oak and the boat is heavily framed. Each model is equipped with a collision bulkhead. The upholstery is genuine leather and the sides of the cockpits, which are of the airplane type, are lined with Spanish leather. An entirely new type of windshield, which is made of triplex non-shatterable glass, in three pieces, and which is ventilating, is used. An ice box is provided under the second seat.

In addition, a 29-foot Dolphin Sedan, a 26-foot Sea-Lyon Seadan and a 26-foot Sea-Lyon, the last two on display for the first time, will be shown.

Distribution of Hackercraft in the East will be handled by Howard W. Lyon, 532 Lexington Ave., New York.

The Matthews "38" for 1928

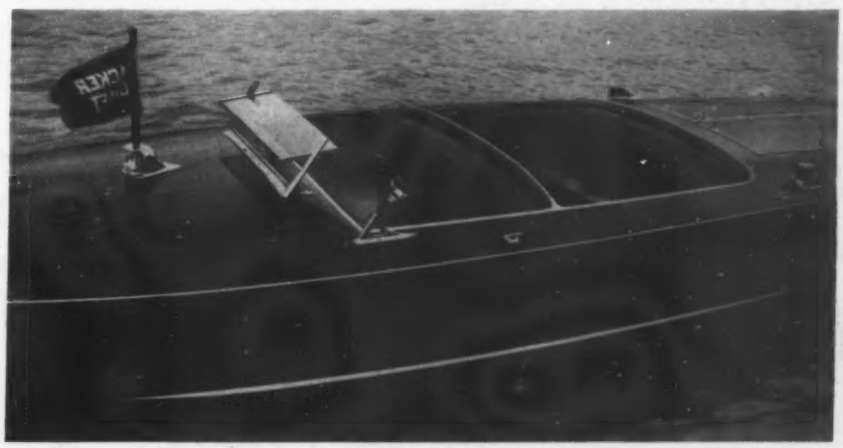
Each year the Matthews Company, builders of stock cruisers, have exhibited at the Show the popular Matthews "38" Single-Cabin Cruiser. This year they show the same boat, but with many new features incorporated into its design — changes in plan and detail that will commend themselves to those experienced in the demands of cruising.

A quantity production boat, every part of the Matthews "38" Single-Cabin Cruiser is constructed throughout for salt water use, and this model has proven its ability and seaworthiness. Accommodations for from four to seven people are provided. There are four individual berths (two uppers and two lowers) in the cabin; and the cockpit seats, when needed as beds, fit the part exceedingly well for three people.

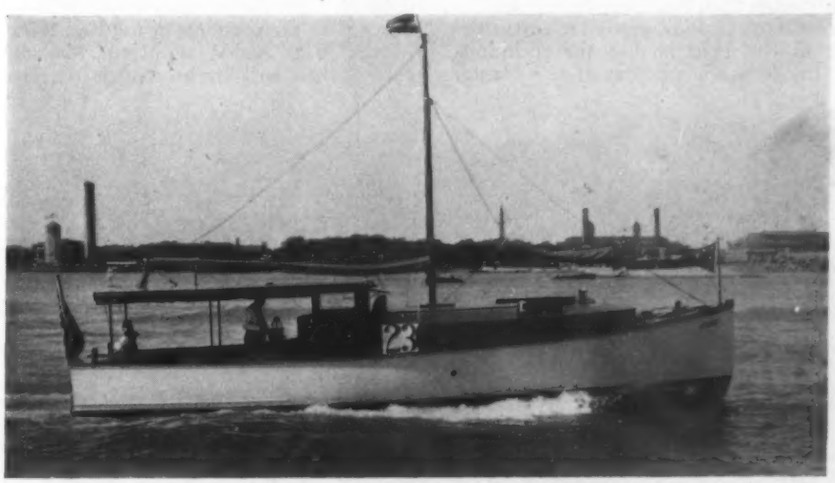
The galley is ample for preparing the kind of meals one would have at home for a party of from six to eight; and the mahogany buffet in the cabin, together with the dish racks in the galley, will take care of every need in the way of linens, silver, crystal, and china.

In the toilet-room, where everything is complete to the last detail of medicine cabinet, soap dish, towel rack, etc., there is an abundance of locker space for towels and many other things that space will be needed for.

A speed of 12 m.p.h. is obtained with a single six-cylinder, 70 h.p. motor.



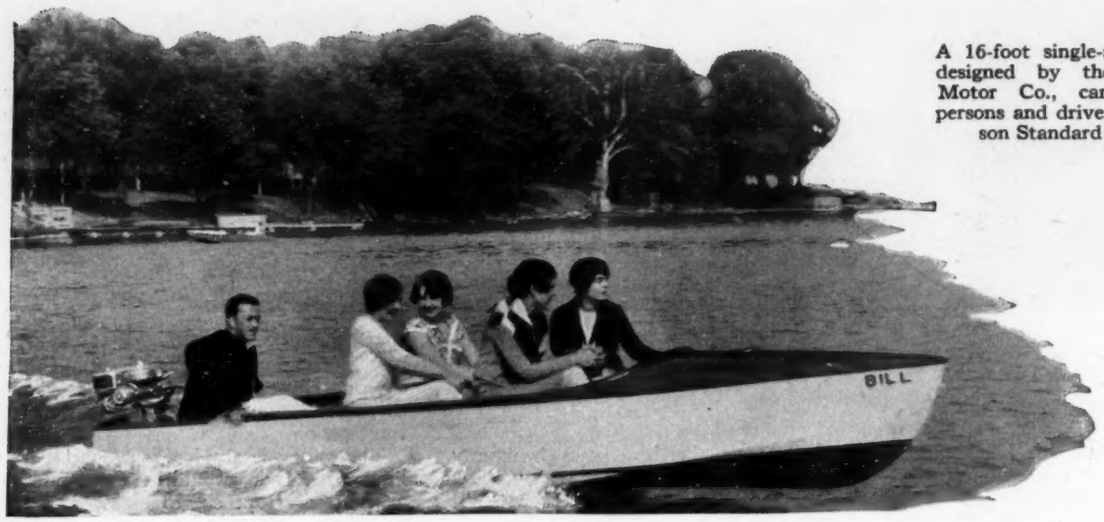
The comfortable cockpit of the Hacker Dolphin-DeLuxe.



The Matthews "38" single cabin cruiser for 1928.

Bruno Beckhard

All those interested in snappy runabouts and outboard motor craft should not fail to visit the exhibit of Bruno Beckhard, the well known outboard expert, for here will be found a horde of craft of this type, turned out by the following representative manufacturers: Airships, Inc., Hammondport, N. Y.; Cute Craft Co., Fall River, Mass.; Gas Engine & Boat Co., Norfolk, Va.; D. N. Kelley & Son, Fairhaven, Mass.; Herbst Boat Works, Wilmington, N. C.; D. Kidney & Sons, West DePere, Wis.; Lyman Boat Works, Cleveland, O. Many of the outstanding winners of the 1927 season will be shown, besides some new models which are expected to go even faster than the season's record breakers.



A 16-foot single-step plane, designed by the Johnson Motor Co., carrying five persons and driven by Johnson Standard Twin.

The New Johnson Lines

Increased power, quieter operation, easier starting and quicker pick-up are refinements in the 1928 line of Johnson Outboard Motors. In addition to a new line of racing models there is an entirely new engine — the Giant Twin. These models are displayed for the first time at the New York Show by the Johnson Motor Company, who recently moved from South Bend, Ind., to their plant in Waukegan, Ill.

The new Giant Twin model is the result of four years of development. It has a piston displacement of 49.48 cubic inches, being the first outboard motor with a displacement over 30 cubic inches. With the exception of size, it does not differ from other Johnson Motors. It is of the twin-cylinder, valveless, four-port type, with bore and stroke increased to 3 x 3½ inches. This new model holds unusual possibilities for racing, having approximately two-thirds greater piston displacement than the next model in size. A special racing model of this motor develops 25.75 h.p.

Johnson engineers are busy developing special hulls for the new Giant Twin. The American Power Boat Association and the Mississippi Valley Power Boat Association have already made a new unlimited class for racing these higher powered outboard motors.

Besides its use on speed boats the new Giant Twin may well be used on runabouts, small cruisers and larger craft that are at present equipped with inboard motors. This motor makes it possible to secure a complete marine power plant developing between 20 and 25 h.p. in one unit weighing but 110 pounds.

Increased power is secured in the Standard and Big Twin Motors by increasing the piston displacements to the limits of the respective classifications of these motors — 19.93 cubic inches in the case of the Standard and 29.78 cubic inches in the Big Twin. Whereas the Standard Twin in racing trim formerly developed 6.45 h.p., the 1928 regular Standard Twin develops 8.95 h.p., and the racing Standard Twin with the cut-outs open and the hot-air tube removed develops 11 h.p. The Big Twin in racing trim formerly developed 11.15 h.p., while the new model develops 13.15 h.p., and the racing Big Twin with the cut-outs open and the hot-air tube removed develops 16.50 h.p. at 3,800 r.p.m.

A larger muffler has been introduced which provides quieter operation than has ever been known in the outboard field. An adjustment which reduces the exhaust still further is incorporated into the muffler.

Also displayed for the first time are Standard Twin and Big Twin Motors designed especially for racing. Measurements in both instances are identical with the regular motor, but the compression is materially increased and the ports are suitably arranged for extreme high speed.

The Johnson Motor Company also show for the first time the new 1928 Aquaflyer — marking an epoch in boat design and construction. Constructed entirely of a new aluminum alloy, perfected by the Aluminum Company of America, the new Aquaflyer is a departure from present-day craft as important as was Fulton's first steamboat.

The Richardson Sportabout

The new Richardson Sportabout, an Eldredge-McInnis designed cruiser, will make its début at the Motor Boat Show. Designed as a sport model of the recently introduced 28-foot Master Cruisabout, it is even more elaborate in fittings and appointments than its companion.

The most striking departure in the design of this boat is that the cockpit is located forward, whereas in the Master Cruisabout it is aft, a change made primarily because of the increasing interest in marine sporting events. Retaining the rakish fleetness of the Cruisabout, the new boat is trim and seaworthy, and a really surprising amount of additional room has been developed as a result of the rearrangement of fittings, although the hulls of the two boats are identical.

The steering control is located in the forward end of the cockpit, giving the helmsman an excellent view. At the rear of the cockpit is a broad cushioned seat, and additional room for two or three chairs. Forward of this cockpit, under the deck, is a large storage space. The cockpit itself is 7′ 10″ long, with a head clearance of more than 6 feet.

Four comfortable berths — convertible into lounges for day use — a full-length clothes closet, fully equipped toilet-room and galley, insure cruising comfort. The total cabin length is 11′ 2″.

Two large tanks holding 35 gallons of water and the same quantity of gasoline are located in the stern of the boat.

It is expected that the Sportabout will fill the need, often expressed by boating enthusiasts, for a craft designed primarily for sport cruising, yet with the conveniences necessary for an extended cruise.

Red Wing Motors

Block V on the mezzanine floor will be devoted to the products of the Red Wing Motor Co., of Red Wing, Minn., who will exhibit their well-known models K, KK,

The new model Richardson 28-foot Sportabout, with the cockpit forward.

The 42-foot mahogany 30-mile shelter cabin runabout, exhibited by the Luders Marine Construction Co.

D, AA, B, BB-Four, BB-Six and Big Chief Special Six.

The New Red Wing Thorobred, to be known as the Arrow Model, is a 6-cylinder, 4-cycle engine, of 3¾" bore and 4½-inch stroke. Features include a genuine Ricardo cylinder head; a 2⅜-inch 7-bearing crank shaft with oversize center bearing; full pressure feed lubrication with patented submerged type Red Wing oil pump; and 2-unit electric starting system with enclosed type fly wheel.

The Verrier Eddy Co. of 222 E. 42nd St. are the New York dealers.

A Luders Express Day Boat for Commuters

One of the most distinctive craft at the Show this year is the 42-foot mahogany express day boat, exhibited by the Luders Marine Construction Company, of Stamford, Conn. Exceedingly high grade, both in construction and finish, this boat makes one of the most complete commuters of its size to be offered. She is a craft that will appeal to the discriminating owner who desires a smart, speedy boat that will negotiate rough water as well as smooth.

The boat is piloted from an enclosed deckhouse or "cab" amidship, forward of which is a large mahogany cabin, handsomely furnished and extremely attractive, while forward of this is the small cockpit, which has become so popular in recent years. The Sterling Dolphin engine is under a trunk cabin abaft the cab, and still further aft is a large open cockpit. Speeds up to 30 miles per hour are assured.

New Universal Motors

In addition to their well-known Flexi-four and Superfour motors, The Universal Motor Co. will have on display three new engines, called the Victory Six, the Big Six and the Big Eight, the production of which are made possible by the building of their new factory, which is said to be the largest and finest of its kind. The Victory Six will have the same bore and stroke as the Superfour — 3½" by 4½", with 7-bearing crankshaft, full-pressure lubrication, Ricardo type cylinder heads, etc. It is very compact, weighing but 550 pounds, and is said to develop 20 per cent more power than is ordinarily expected from a motor of this size.

The Big Six and Big Eight have a bore of 4⅜". The cylinder blocks are cast in pairs, the crank case, base, cylinder head, exhaust manifold and reverse gear housing being of aluminum. The Big Six has a 7-bearing crankshaft, while the Big Eight has a 9-bearing crankshaft. Full specifications, rating, and prices will be released shortly.

A New Winton Diesel

A new Diesel engine that will create a lot of interest in the trade and among the owners of the larger yachts is a six-cylinder motor, brought out by the Winton Engine Company. This is a moderate high speed motor, turning at 700 r.p.m., at which speed it develops 200 h.p. The bore and stroke are eight and ten inches respectively, and the engine weighs only 6800 pounds. It is fully enclosed and is a very handsome and neat looking job for high class boats.

Sperry Yacht Equipment

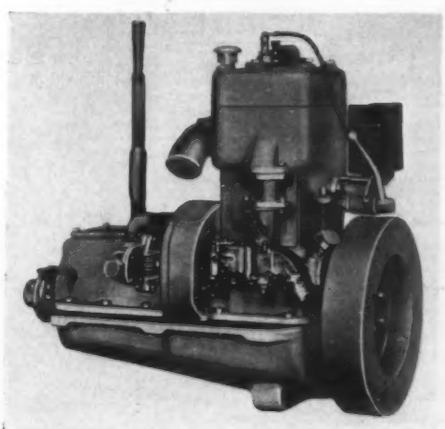
Of primary interest in the booth of the Sperry Gyroscope Co., of Brooklyn, will be the working model of the gyro ship stabilizer, now in use on yachts ranging in size from 65 to 294 feet. A complete gyro-compass equipment, several forms of automatic steering equipment, an engine speed indicator and a helm angle indicator system will also be in operation. Searchlights of five different types, which can be operated for interested visitors, will be included in the display.

The New Evinrudes

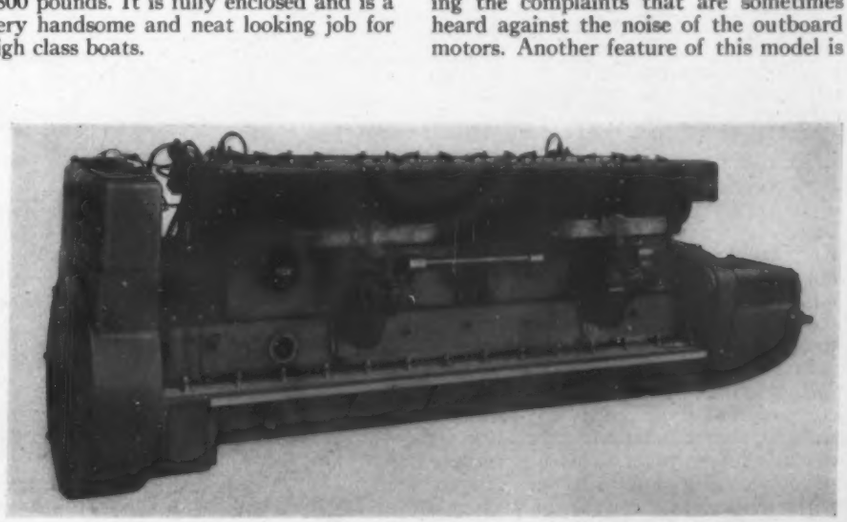
The Evinrude Motor Company's exhibit is, probably, the most interesting and complete that this company has had in many years. New speeds, new power, and three brand-new models are some of the high lights of the products that will be shown.

This company is now manufacturing a motor for every conceivable small boat purpose. At the top of the list there is the giant Speeditwin, greatly advanced in speed and power over last year's model, conservatively rated at 16 h.p. and very huskily built.

The Evinrude Fastwin for this year is a full-fledged 12-h.p. Class B Motor, said to be capable of the speed achieved by the Class C of 1927. One of the features of this motor, as well as of the Speeditwin, is the new silent muffler. Evinrude's action in bringing out these mufflers will undoubtedly have considerable influence in lessening the complaints that are sometimes heard against the noise of the outboard motors. Another feature of this model is



The 8 h.p. single cylinder Universal motor.



The big Universal 8-cylinder model is an attractive and powerful motor.

***Mimi*, Evinrude equipped, winning Pacific Coast Championship in Class C at San Diego Dec. 10th, at 30.14 m.p.h.**

an entirely new carburetor with spray proof air horn which insures smoother operation under all conditions and considerable power increase. Another new motor in the Evinrude line is the 6-h.p. Fleetwin in Class C. With greatly increased speed and power this motor should prove popular, as there is an increasing demand for a small, compact, light-weight motor capable of the speed of some 25 miles an hour in a hydroplane, and 12 to 20 miles an hour on the conventional type of boat.

For those who do not care so much about speed the popular Sportwin 2½-h.p. model is being retained in the line. This model has all of the well-known features and conveniences, such as electric light, dual ignition, motor lock, automatic reverse, and free tilt-up.

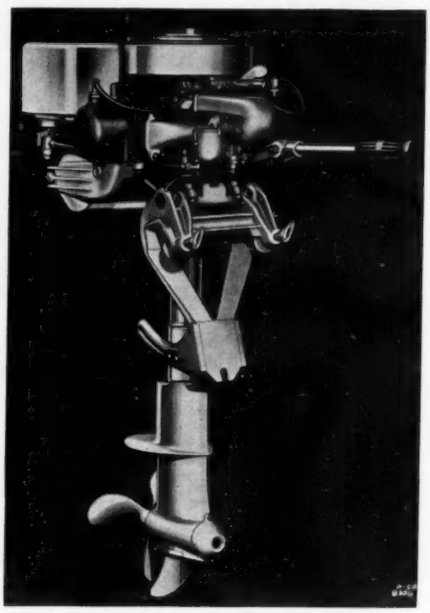
Besides the exhibit of these outboard models there is also one of the Evinrude High Pressure Pumpers, which is proving such an aid to the conservation of the world's timber supply, and the Evinrude Centrifugal Pump. The number of the Evinrude Booth is Y 2, located on the Mezzanine Floor. Mr. Oluf Mikkelsen, New York distributor, and various officials from the Evinrude Motor Company will be in attendance.

The New Toppan Express Cruiser

The recent successes of the Toppan Champion *Llenroc* 31-foot Express Cruiser has resulted in a public demand for a fast cruiser of the same type in a slightly larger model. The Toppan Company announces that they have now in production a 32½-foot Express Cruiser of the same underbody design as the *Llenroc II*. Two cabin arrangements are offered: a double cabin model to sleep five to six, and a single cabin model to sleep two or four. Both cruisers have a day cruising capacity of 10 to 12 persons. This new model will be powered with the 100-h.p. 6-cylinder Kermath to give speeds from 18 to 20 m.p.h., or with the Sterling Petrel 150-h.p. engine, so successfully used in *Llenroc II* last season, to give speeds from 25 to 30 m.p.h.

From the plans of the double cabin *Llenroc* cruiser it will be noted that this company has produced a 32½-foot boat with the accommodations and comforts of a much larger yacht. This has made it possible to give an unusual turn of speed without sacrificing comfort or making it necessary to use extremely large, expensive engines requiring a mechanic to operate and keep in condition and consuming excessive fuel

Reference to the plans will show that all controls are at the auto-type wheel and



The 1928 Evinrude Speeditwin, rated at 16 h.p.

the boat is operated like the modern type of fast runabout. The owner-driver is in a protected forward cockpit, which also provides room for four or five guests. The engine is not enclosed in the cabin, thereby eliminating all reverberation, machinery noise and fumes. In the double cabin type the owner-driver and guests are also forward of the power plant and the riding effect is the same as in the forward cockpit of the modern runabout. The engine is totally enclosed, but quickly accessible not only through the top hatch but through a removable panel on the port side, as the bridge deck does not extend entirely across the hull.

The Toppan Company has also brought out a 10- and 12-foot yacht tender of a type that can be towed successfully at high speeds, especially for use with the new cruisers and their 26-foot Sea Dog runabout. These tenders will be shown in connection with the Toppan Exhibit at the New York and Boston Motor Boat Shows, and should be of interest to the man who owns a fast cruiser and runabout that has not the space or necessary equipment to carry a tender aboard.

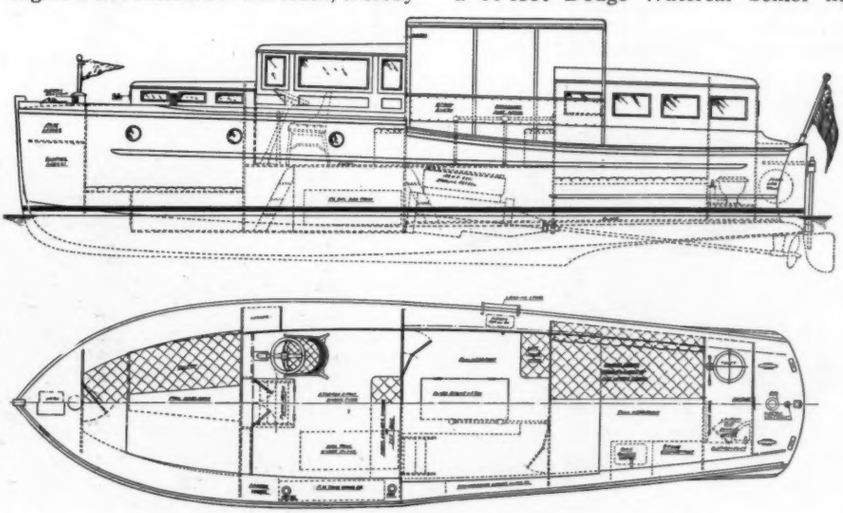
Edson Steerers

Every variety of steering gear, for both power and sail craft, will be found in Booth 60, third floor, in the exhibit of the Edson Mfg. Co., of Boston. In addition, there will be shown a fine line of fancy wood wheels, and powerful bilge pumps, the latter being nearly as famous as the well known steerers.

Dodge Watercars for 1928

In space No. A-1 the visitor at the Show will see some notable changes in several of the models of Dodge Watercars. The most important of these is the adoption of the new Chrysler Imperial "80" marine engine for the 26-foot model, which gives a smoother, better and faster performance in this boat than the one used heretofore. This 26-footer has, during the past two years, become a most popular model, and the Dodge Boat Works intend to concentrate largely on that type during the coming season. Several of these boats will be shown including, it is expected, the 26-footer, which recently made an endurance run from New York to Florida.

Another interesting special model at the Show, which will be built only on order, is a 30-foot Dodge Watercar Senior hull



Plans of 32½-foot Toppan Champion *Llenroc* Express Cruiser.

The Horace E. Dodge Boat Works will concentrate for 1928 on this 26-foot Watercar, powered with a Chrysler Imperial "80" motor.

equipped with the Packard "1242" marine racing motor. This is practically the same engine as is used in the championship racing boats, *Miss Syndicate* and *Sister Syn*, and gives the 30-foot standard hull a speed of over 55 miles an hour.

Other models of Dodge Watercars, which show some radical reductions in price, are the 22-foot runabout model "422" with 30-h.p. Dodge Brothers marine engine; the 22-foot model "822" with 90–100-h.p. Dodge-Curtiss marine engine, and the famous model "826," the 26-foot type, with the 90–100-h.p. Dodge-Curtiss marine engine. The price on the model "1230" 30-foot Watercar Senior with the 12-cylinder Packard "1237" engine, which gives a speed of over 45 miles an hour, remains unchanged.

A "Down East" Runabout

A newcomer at the Show this year is the Down East Boat Corporation, of Camden, Maine, who exhibit a very handsome 18-foot V-bottom mahogany runabout, which they have appropriately named the "Down Easter."

This boat is a brand new model and is a fine example of high grade boat building, no expense having been spared to turn out as fine a job as possible. The hull was designed by Philip L. Rhodes, of New York. The power plant is a Gray 6-cylinder 40-h.p. motor, with which a speed of from 25 to 28 miles is attained. The little boat is completely equipped and ready to run, with upholstered spring cushions in the cockpit, covered with Russialoid.

The aim of the Down East Boat Corporation is to turn out a carefully designed mahogany runabout, seaworthy and exclusive, and built with the very best materials, with custom workmanship and attention to details. Although a standardized model, the boat is not built to meet a price but to a standard of refinement.

Wright-Typhoon Motors

The Wright Aeronautical Corporation, Paterson, N. J., will include in its exhibit a Wright Typhoon 550–650 h.p. marine engine; certain major engine parts, such as crankshaft, connecting rods, cylinders, pistons; oil and water pumps, etc. Photographs of boats in which the Typhoon engine has been installed will also be shown.

The Much-Talked-of Fantail Boat

Ever since the phenomenal speed trials run by the 38-foot fantail boat on Manhasset Bay last December, yachtsmen generally have been very much interested in this craft. The first chance they have to really inspect her is at the Motor Boat Show, where the Fantail Syndicate will exhibit the boat and explain the mechanism of the fin, or plane, at her stern.

The aim of the inventor, Johannes Plum, was to get a hull that would lift clear of the water, irrespective of the load. To accomplish this he fitted to the stern of this 38-foot, beamy, husky hull, which was built by the Purdy Boat Company, an adjustable fin or fantail, from which the boat takes her name. By means of compressed air this fin may be set at any desired angle to lift the hull out of the water at varying loads. It is actuated by levers on the dashboard forward. In the trials the fin apparently developed no weakness.

The *Fantail* is powered with a Wright Typhoon low compression motor. She is a large boat, yet she had no difficulty in climbing out and attaining very high speed with heavy loads. In her trials she was given various loads, carrying up to 4000 pounds of pig lead in the test, and did better than 60 m.p.h.

Alloy Outboard Boats

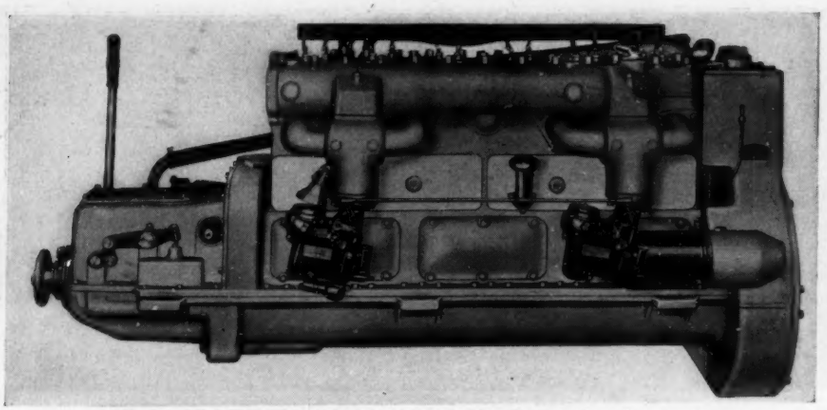
The Alloy Boat Company, of Buffalo, New York, exhibits a series of new alloy outboard motor boats, their Slipper type model introducing new standards in outboard motor boats. This boat is made of a metal alloy that combines extreme strength and lightness. She is very fast and safe, and will not warp nor absorb water. The unusual strength of the alloy makes these boats unusually strong and impervious to hard usage. A feature new to outboard motor boats is the collapsible fin controlled by a hand lever from within the boat.

The Standard Slipper Outboard Motor Boat, a single step hydro, 11′ 6″ by 48″ beam, weighs but 90 pounds. The Super Slipper Outboard Motor Boat, lacquer finished, is a single step hydro, 11′ 6″ by 48″ beam, with two removable bucket seats, 10″ aluminum steering wheel, forward throttle control, and mahogany floor covering triangular section alloy ribs.

Dart Runabouts

Dart Runabouts, produced by the Indian Lake Boat Co., of Lima, Ohio, will be represented by three models — a 22½-foot junior, a 26-foot runabout and a 30-foot runabout. The last, featuring a glass enclosed sedan top, is a new model for which a popular reception is predicted.

The stern of the fantail boat, seen for the first time at the Show.



New model Kermath 125 h.p. motor, showing dual carburetors.

A New 125-H.P. 6-Cylinder Kermath

The latest achievement in power development is proclaimed by the Kermath Manufacturing Co., in introducing at the Show the new model 125-h.p. 6-cylinder "L" head marine motor to the realm of motor boating. This engine has been designed for fast runabouts from 26 to 30 feet in length — with a speed range from 32 to 38 miles per hour at 2,000 to 2,200 r.p.m. It will also be available in the medium duty 85-h.p. model for cruisers from 35 to 40 feet in length. Speeds from 12 to 14 miles per hour will be possible without the slightest effort at from 1,000 to 1,250 r.p.m.

The displacement of this motor is 555 cubic inches, with 4⅜" bore and 5½" stroke. Features of this motor are dual Delco ignition, dual carburetion, dual manifolding and dual water pumps, while the reverse gear and clutch, crankshaft and connecting rods of the well-known valve-in-head Kermath 6-cylinder motor, are also used in the new "125" model. Its compactness and light weight mark this new addition to the Kermath line as setting a splendid standard in fine marine engine design and manufacturing practice.

Coming in between the 100-h.p. Kermath and the "150" model, the new "125" bids fair to establish a very popular reputation for merited performance in runabouts and cruisers. A full line of other Kermath models is also on display.

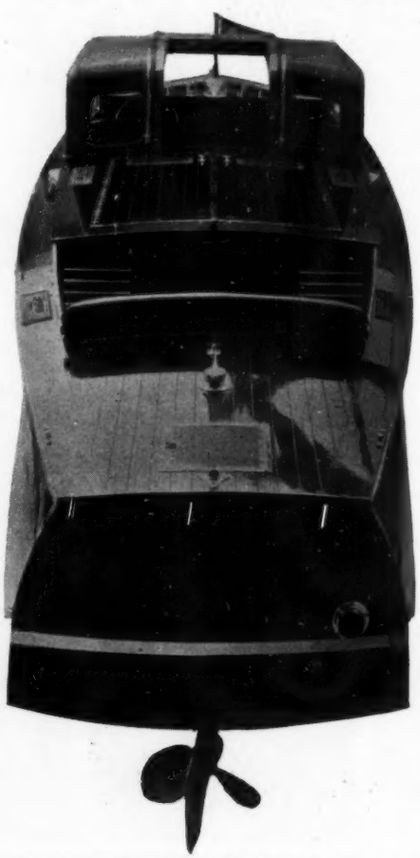
Gar Wood Boats for 1928

The exhibit of Gar Wood, Inc., includes two new models of the *Baby Gar*. Both models are strikingly new in design, in performance, in beauty and incorporate several exclusive features. In them one finds a blend of many qualities long desired by yachtsmen.

The new *Baby Gar* "28" has a length of 28 ft., beam of 7' 2", and a draft of 25", and is quite different in design from its famous ancestors. A deeper V-bottom, greater beam and freeboard and a slightly narrower stern have combined to produce a boat of exceptional seaworthiness without loss of speed. At no point has there been a sacrifice of strength to obtain light weight for greater speed. Combined with the seaworthiness and sturdy construction of the *Baby Gar* "28" is ease of control and maneuvering ability, thus making it an unusually safe runabout.

The seating arrangement consists of a double forward cockpit and single cockpit aft, permitting comfortable accommodations for nine persons. The front seat of the forward cockpit is divided for convenience and to prevent crowding the driver. All seats have plenty of leg room. Speed, which is obviously an outstanding characteristic of boats built by Gar Wood, is found in abundance. The *Baby Gar* will make consistently 38–40 miles per hour. The well known Model H-6 Scripps six-cylinder marine engine developing 200 h.p. at 2,100 r.p.m. affords plenty of power to get you there and to bring you back.

In the new *Baby Gar* 33 model the design of hull closely follows that of the *Baby Gar* 28, with ample provisions for the greater speeds of which it is capable.



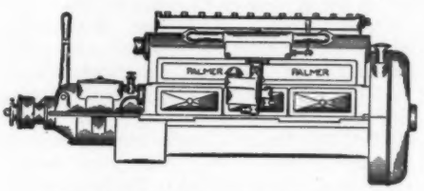
The Baby Gar 28-foot Sedan Runabout.

The outstanding feature of the *Baby Gar* 33 is its thrilling speed. It is powered by the famous Gar Wood Twelve. This is the twelve cylinder V-type engine that won all Gar Wood's races including the Harmsworth International Trophy in the *Miss Americas*, the Fisher Allison Trophy, Wood-Fisher Trophy and many others.

Yachtsmen will be interested to hear that A. J. Utz has been appointed New York representative of Gar Wood, Inc., and he will be at the Show to introduce the new models.

The New Palmer "Power Boy 6"

Palmer Bros. Engines, Inc., of Cos Cob, Conn., have now developed the big brother to their Little Huskie engine which was introduced with such success at the 1927 Motor Boat Show. An insistent demand for a more powerful engine



The new Palmer "Power-Boy 6."

designed along similar lines was felt during the past summer and, as a consequence, the new Power Boy Six will appear at the Show.

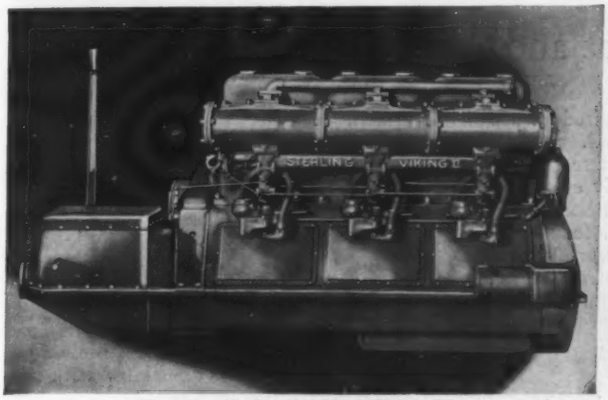
This new engine is a semi-high speed, six-cylinder, four-cycle marine engine with L-head cylinders, 3½ inch bore by 4½ inch stroke; displacement 259.7 cu. in. It develops full 35–40 horsepower at 1200–1400 r.p.m. The engine is totally enclosed, with starter and Palmer reverse gear mounted integrally, making a very compact, efficient unit.

The cylinders are cast enbloc, with large water spaces completely surrounding the cylinder barrels. Both cylinder and jacket walls are of extra thickness, allowing for many years of salt water action and possible regrinding of the cylinders. The water jacket cover is designed to convey the cooling water to three points along the cylinder length to insure even cooling of cylinder bloc. This jacket cover also houses an oil cooling device around which all the water from water pump must circulate before entering the cylinder water jackets.

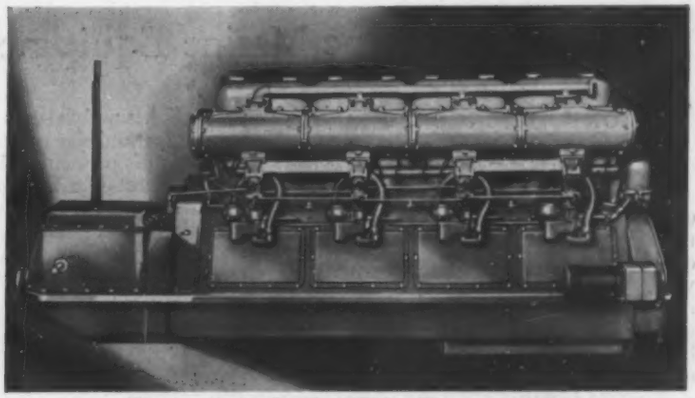
A full line of Palmer engines will also be shown.

Sterling Motors and a New Viking

On the second floor of the Show you will find a most attractive setting, depicting an old Spanish garden, invitingly colorful, decorative and restful, where will be exhibited the well known Sterling line. A departure from the ordinary engine exhibit, just as Sterling engines excel mechanically. The careful thought and attention to detail that make this exhibit an outstanding feature of the Show, is intended to indicate the true quality of the



New 6-cylinder Sterling Viking II.



The 8-cylinder Sterling Viking II, a new model.

product. The same careful thought is in the engine. In addition to displaying the various present models of Sterling engines, the new Viking II, six and eight cylinder engines, will be introduced.

The new Viking II engines were primarily designed to drive the larger yachts, which are steadily becoming more popular. These six- and eight-cylinder engines are 8-inch bore, 9-inch stroke, developing, in a six-cylinder model, 425 horsepower at 1,200 revolutions, and 565 horsepower in the eight-cylinder at 1,200 revolutions.

If the effort to please is justified and you wish to know more about Sterlings, some one at the exhibit will be glad to greet you and demonstrate the engines, especially the new Vikings. If you attend, be sure to give the Sterling exhibit a portion of your time.

Scripps Motors and a New 200-H.P. Model

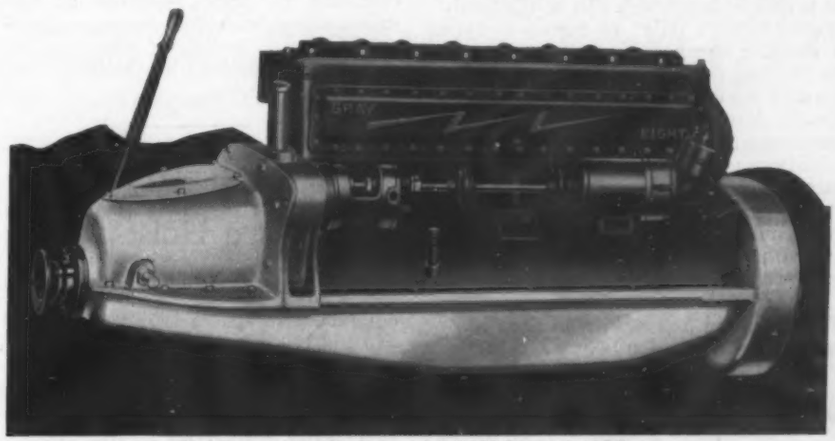
The Scripps Motor Co., of Detroit, will exhibit their complete line of 4- and 6-cylinder motors, which have become so popular with yachtsmen for use in power cruisers and auxiliaries.

A brand new motor has been added to the Scripps line — Model H-6, a compact, high speed engine, with bore of 5″ and stroke of 5¾″, which is said to develop 200 h.p. at 2100 r.p.m. A new development in Model G-6, in a special cruiser-type motor with iron oil pan and iron reverse gear cover, will also be shown for the first time.

Gray Motors, Including a 100-H.P. Straight Eight

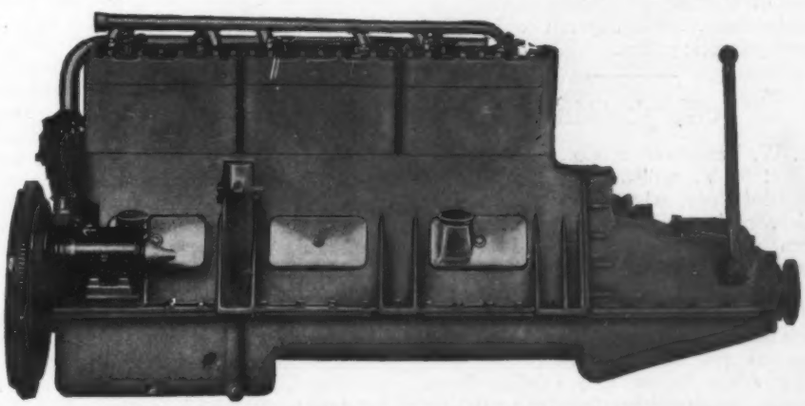
In announcing their new Straight Eight 100-h.p. model "Eight-100" marine motor, the Gray Marine Motor Company of Detroit, Michigan, makes the claim that, according to information available, this is the first time there has been exhibited at the New York Show an 8-cylinder of 100-h.p. rating, with power capacity in excess of its rating, which has the remarkable characteristics of weighing under 800 pounds and of being under 60 inches in length, while at the same time having all of the characteristic features of the 4- and 6-cylinder engines. This new model gives the Gray Motor Company a complete family of marine motors.

The new Gray Eight is 59½ inches overall, weighs, with the aluminum base, 760 pounds, has a bore and stroke of 3⅜″ x 4½″ and 322 cubic inches displacement. All parts of the motor are carefully enclosed. The power curve shows 114 h.p. at 3,300 r.p.m; 100 h.p. at 2,400 r.p.m; and 60 h.p. at actual cruiser speeds.



Gray's new 8-cylinder model "800," rated 100 h.p.

The Gray Marine Motor Company's exhibit, which is in Space T, will include also the following line, the last two "Sixes" being new models: 5-h.p. single-cylinder model "O"; 10-h.p. two-cylinder model "O"; 20-h.p. four cylinder model "Z"; 20–30-h.p. four-cylinder model "Four-30"; Model "Four-50" four-cylinder; Model "Four-75" four-cylinder; Gray "Six-40," with single and double ignition; Gray "Six-72"; and "Six-90."



Another new model is the Scripps H-6, rated 200 h.p. at 2100 r.p.m.

Penn Yan Boats

Eleven small boats, forming the exhibit of the Penn Yan Boat Co., of Penn Yan, N. Y., will be found on the mezzanine floor, in space O. The models are as follows: Super Buzz Deluxe and Super Buzz, fast family outboard runabouts for big motors; the Playmate, fast family outboard runabout for medium power motors, Coquette, family outboard boat for low power motors; Ceestepper, racing hydroplane for big motors; Beehydro, racing hydroplane for medium power motors; three sizes of rowing dinghies; a sailing dinghy; a 10-foot auto canoe.

Some Marine Equipment and Accessories

Wilcox-Crittenden Marine Hardware

In booths 19 and 20, which are near the elevator on the third floor, will be found the highly interesting and unusual exhibit of Wilcox-Crittenden & Company, for 81 years manufacturers of dependable marine hardware and boat fittings. Instead of the customary "catalog display" a limited number of exceptionally interesting items will be featured. Every motor boat enthusiast, naval architect and boat builder will want to see these W-C features. They will include a new design oval port light with patented removable screens, the port light being so designed as to admit air and light the full width of the port; a newly-designed clam shell ventilator, extremely strong and durable, built to admit the maximum amount of air; the well-known auto chime whistle which operates either from burned gas or air pressure, and which can be distinctly heard at half a mile; an improved type of gasoline strainer, by means of which the strainer may be readily removed for cleaning and which contains an exceptionally large drainage chamber; and a new intake strainer with inlet connections.

Visitors to the Show will also be interested in the model reproduction of one of the old-time whaling vessels which sailed the oceans of the world several generations ago, with Wilcox-Crittenden & Company's fittings as a part of her equipment.

A hearty welcome will be extended to all friends, old and new, who drop in at the Wilcox-Crittenden booths.

Moto Meter Self-Adjusting Spark Plug

The Moto Meter Company, Inc., of Long Island City, in addition to their Marine Boyce MotoMeter, are making a special showing at the Motor Boat Show of the MotoMeter Self-Adjusting Spark Plug with which splendid results have been obtained during the past few months.

At many of the regattas held in the East MotoMeter Self-Adjusting Spark Plugs were used in winning boats in all classes. They have proved successful in every type of marine motor ranging from 4 h.p. to the 500 h.p. Liberty Motors.

It is interesting to note that both *Greenwich Folly* and *Miss Columbia*, the only two boats that finished in the Gold Cup Race at Greenwich, Conn., last summer, were equipped with this type of plug.

National Marine Lamp Co. Products

A complete line of navigating lights, lanterns for oil and electricity, electric searchlights, projectors, etc., will form the display of the National Marine Lamp Co., of Forestville, Conn., which will occupy booth no. 64 on the mezzanine floor. This firm manufactures a wide range of navigation lights and fixtures suited for use on every type and size of vessel.

Items of particular interest are the Lebby searchlight, a highly efficient and durable light, with or without control, available in five sizes and four finishes; and the Excellight, a powerful portable electric searchlight. An attractive group of "Nautic" lamps and fixtures for homes will also be on display.

Ovington China, Glass and Silverware

To those who take pleasure in the smallest details of yacht equipment and to whom choiceness of material and design is a matter of pride, the exhibit of Ovington china, glass and silverware, in booths 31 and 32, will prove a point of attraction. A set of dinnerware or silver, decorated with one's own yacht or club flag, takes on that character of things suitable to their surroundings which is so important in establishing a feeling of complete harmony. These articles are available at a wide range of prices.

American Engineering Windlasses, Winches and Hoists

The American Engineering Company will exhibit a complete line of yacht equipment in spaces 107, 108, 109, 110, 113 and 114, which are the same spaces it occupied last year. Among the new machines to be seen this year will be motor driven davit winches; a new type of hand-gear davit winch; an electro-hydraulic steerer for the new yacht now being built for H. H. Rogers; a new type of hand windlass; two new self-contained electric windlasses and a new Juruick Refrigeration Unit.

The feature of the exhibit will be a quarter-ton Lo-Hed mono-rail electric hoist mounted over a yacht engine. This hoist is a new design developed during the past year as a general utility hoist for handling all sorts of small loads.

Other items in the exhibit will include steering wheels, electric steerers of various types, remote reverse control, several types of electric windlasses, stationary electric hoist, hand capstan and Hele-Shaw hydraulic pump.

Jeffery's Glues

L. W. Ferdinand & Co., of Rockville Center, N. Y., will occupy Booth 62 on the third floor, where they will exhibit their complete line of Jeffery's Marine Glues and Ferdico Marine Products. The various kinds of Jeffery's Glues are well known for their waterproof, adhesive and elastic properties. Two of their 1927 products were Ferdico Liquid Aviation Glue, for use on hydroplanes and outboard motor boats, and Ferdico Stick Cement, for attaching ferrules to fishing rods, etc. The whys and wherefores of all these products will be thoroughly demonstrated to all hands.

Hyde Propellers

The well known line of Hyde and Hywinco propellers will be shown in the booth of the Hyde Windlass Co., of Bath, Me. Every type of wheel, for every type of boat, is turned out by the Hyde Co., and is manufactured up to the usual high standard always associated with the products of this company.

Logs, Compasses, Binnacles, etc.

A splendid line of logs, compasses, binnacles and other marine gadgets will be shown at the booth of Kelvin & Wilfrid O. White, on the third floor. This concern has been well known for years as specialists in these necessities, and their products can always be relied upon. A number of new compasses and binnacles, for both sail and power driven craft, are sure to be attractive. One of their best known lines is the Walker Patent Ship Logs, made for both small and large craft, which many experienced yachtsmen and professional sailors believe to be the most accurate and reliable logs obtainable. For average sized craft, the Walker Excelsior III log is recommended, and the Trident Electric log for large, ocean-going yachts.

Lockwood Outboards

In addition to their regular Model T outboard, which has performed so satisfactorily the past few years, the Lockwood Motor Co., of Jackson, Mich., will show two new models which will be eye-openers. The first, a Class A motor, will be called the Ace, and the second, a Class B motor, the Chief. It is claimed that in official trials, held last November, both these new motors established new records for their class. Their many new features and refinements will be revealed for the first time at the Show.

Tiebout's for Hardware

Anyone in need of any kind of hardware or equipment for a yacht, whether power or sail, large or small, can find it at W. & J. Tiebout's, whose big booth will be found on the third floor. In addition to the usual line of equipment and hardware, Tiebout has a few specialties not found elsewhere — such as the famous Rhody Star Boat Fittings, most of which have been used on the principal 1927 winners in this hard-raced class. In addition, this firm has recently become associated with America's foremost drydock engineers, and is in an excellent position to install new marine railways of the most approved type, or repair old ones. Mr. Henry Devereux, one of New York's youngest naval architects, and official measurer of the Star Class, will be on hand to give information and advice to racing and cruising men.

VALSPARRED . . . *of course!*

Courtesy of the Hacker Boat Company

THIS 28-foot runabout, built by the Hacker Boat Company, makes 40 miles an hour. That she appears as smart at the end of a season's hard use as she did when launched is a compliment to the wisdom of her builders in applying a Valspar finish.

LIKE most such aquatic "thoroughbreds," this sturdy, speedy runabout—a stock model of the Hacker Boat Company, Mt. Clemens, Mich.—is Valsparred, of course.

We say "of course," because it has long since become a habit for makers of fine watercraft of all kinds to use Valspar—a finish which they *know* will stand up.

Naturally we are gratified, though not surprised, when S. D. McCready, General Manager of the Hacker Boat Company, writes us:

> "We have been using Valspar for several years, with no difficulties, on all our racing, special and stock boats. All stock boats receive five coats of Valspar and, with a reasonable amount of care, show practically no deterioration at the end of a season's use.
>
> "The Hacker Boat Company intends to continue the use of Valspar Varnish for all 1928 boats. This certainly shows what six years of satisfaction means to this company."

Courtesy of the Hacker Boat Company

VALENTINE'S VALSPAR
The Varnish That Won't Turn White

VALENTINE & COMPANY, 386 Fourth Avenue, New York
BOSTON DETROIT CHICAGO
W. P. FULLER & CO. PACIFIC COAST

Stearns Motors

The feature of the exhibit of the Stearns Motor Mfg. Co. will be their new Model MER 6-cylinder engine, an overhead valve motor with bore of 5½" and stroke of 6½". Two four-cylinder motors, Model MHU and MEU, both having a number of new features and improvements over previous models of the same designation, will also be shown.

Columbian Bronze Propellers

Of particular interest to the outboard motor enthusiasts will be the exhibit of the Columbian Propeller Corporation, which will feature a complete line of their recently developed outboard motor propellers. Two new reverse control levers and a new bronze steering wheel will also be important items in this exhibit, which will occupy Booths 105 and 106, on the third floor.

There will be the usual display of Columbian propellers, stuffing boxes, stern bearings and other marine accessories.

Breinig Brothers Paint

Models finished with the varnishes, enamels and paints of Breinig Brothers, Inc., of Hoboken, N. J., showing the effects which may be obtained by the use of their products, will form the exhibit of this firm. The principal commodity of Breinig Brothers for yacht use is a special Bright Green Non-Fouling Boat Bottom Enamel, produced particularly for racing craft and successfully used by many of last year's prominent winners.

John H. Wells, Inc.

John H. Wells, Inc., naval architects and yacht brokers, will be found on the third floor, where they will have plans, photographs and data on the many yachts which they have designed and built in past years, as well as several new ones now building.

Woolsey's Paints

The C. A. Woolsey Paint & Color Co., of Jersey City, N. J., whose marine paints and varnishes have been well known to yachtsmen for many years, will be found on the third floor, where they will have an attractive display of models of both sail and motor boats in addition to their display of paints and varnishes.

Smith Marine Paints and Varnishes

Edward Smith & Co., of Long Island City, N. Y., will occupy their usual space on the third floor, Booths 23 and 24, where they will have on display the line of marine paints and varnishes associated with the name of their firm for a hundred years. The exhibit will be in charge of James F. McBride, Captain Gustav Lambert and George C. Clark.

Interior of deckhouse of *Lura M III*, showing the Ternstedt window regulators.

Debevoise Paints

Booth 30, third floor, will be occupied by the Debevoise Co., of Brooklyn, N. Y. It will be arranged as a resting place for their many friends in the marine line who have found Depaco Marine Flat White, Depaco Deck Paint and Fulton Copper Paint of virtue.

Barnegat Sneak Boxes

J. H. Perrine, of Barnegat, N. J., the home of the famous "sneak box," will exhibit a pair of these famous boats at the Show. These two craft are 15 feet long over all, one being rigged as a jib-headed sloop, and the other being cat-rigged; the former carrying 165 square feet of sail and the latter 156. In addition to these models shown, the Perrine Company also makes 18-foot stock sneak boxes in both sloop and cat rigs. These boats make ideal craft for shoal water sailing, and are much in demand for small one-design classes.

A Perrine 15-foot "sneak box."

Window Regulators for the Yacht

A newcomer at the Show this year is the Ternstedt Mfg. Co., of Detroit, Mich., which enters the marine field with a much needed window regulator. Up to the present but little advance has been made by boat manufacturers in the matter of manipulation of cabin and pilot house windows, and many a boat owner has wrestled with the problem of getting a window sash that will stay put in any position and will not rattle. Therefore, the development of the Ternstedt Marine Heavy Duty Regulator is a welcome advancement. Windows in power boats now may be raised or lowered without effort to any desired position in precisely the same manner as in modern motor cars. This company designs and builds, in fact, 70 per cent of the window control mechanisms for the motor car industry.

The installation of this device offers no problems to the boat builder, and the windows are controlled by a small lever handle operating an endless chain over sprocket wheels, precisely as in a car. Many of the finest yachts, both cruisers and sedan runabouts, are now using this excellent device, which is sure to make a big appeal to the yachtsman.

Paragon Gears

In addition to their regular line of reverse gears, which include the yoke type, unit type, and enclosed type, the Paragon Gear Works, of Taunton, Mass., will have on exhibition the new "90" line type which has been developed within the past year. This is rather an unusual product, due to the fact that it not only combines a great many of the much sought for features found in only isolated cases, but also the additional feature of giving direct drive on forward speed and a full 90 per cent in reverse. This type is particularly adapted for high speed work.

(*Other Show Exhibits on Pages 116, 119 and 120*)

RELIABILITY

A New FAYBOW all-mahogany Outboard Craft shown at the New York Show

For longer than a quarter of a century, Fay & Bowen Marine Engines and Power Boats have been built to a high standard which has earned for them an international reputation for RELIABLE PERFORMANCE.

Now comes the new FAYBOW "Middy" 16-ft. all-mahogany outboard motor boat — embodying all the fine distinctions which the name FAYBOW has reflected for so many years.

This trim, sturdy outboard model is a gem of marine architecture — graceful in line, speedy, roomy, dry as a bone, beautifully finished in every detail and exceptionally seaworthy. She planes beautifully, banks perfectly and can be turned about at full speed in a little more than a boat's length.

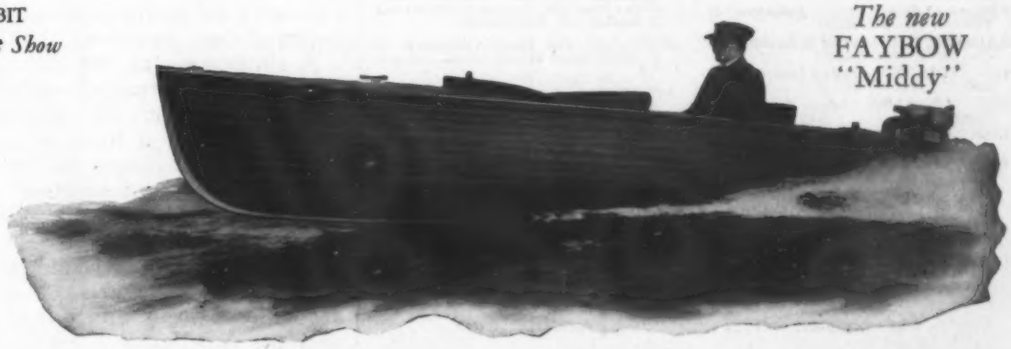
The "Middy" sells at a low price for a boat of its quality and is most economical to run. Ideal as a runabout for family use or as a yacht tender. Speed, with suitable outboard motor, up to 22 miles an hour.

Complete specifications and price gladly sent on request

FAY & BOWEN ENGINE COMPANY
GENEVA, N. Y., U. S. A.

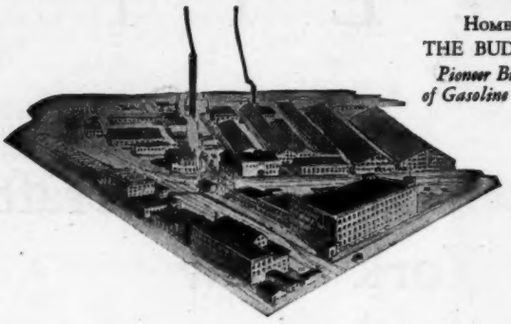
FAY & BOWEN EXHIBIT
at the New York Motor Boat Show
Blocks G 1 and 2

The new
FAYBOW
"Middy"



FAYBOW

MARINE ENGINES AND POWER BOATS



HOME of
THE BUDA CO.
Pioneer Builders of Gasoline Engines

BUDA
Marine Engines
— *a "Known quantity" — and*
NATIONALLY DISTRIBUTED

BUDA Marine Engines are built to meet the present day demand for increased speeds and large load carrying capacities. They have been ***in production*** for several years — and have ***made good*** in the hands of owners everywhere.

Investigate **BUDA** — the Marine Engine that has forged ahead by sheer PERFORMANCE!

Any of the distributors listed below will be pleased to give you complete information.

Distributors

NEW YORK, N. Y.: Bowler, Holmes & Hecker Co., 259 Greenwich Street
BOSTON, MASS.: Savage Boat & Engine Co., 780 Commonwealth Avenue
ANNAPOLIS, MD.: Chance Marine Constr. Co.
PHILADELPHIA, PA.: Johnson & Towers, 125 Arch Street
RALEIGH, N. C.: Motor & Equipment Co., 215 E. Davie Street
HOUSTON, TEX.: Peden Iron & Steel Co.
NEW ORLEANS, LA.: Woodward, Wight & Co.
CHICAGO, ILL.: Buda Engine Service Co., 2419 Indiana Avenue
SEATTLE, WASH.: Richard Froboese Co., 83 Marion Street
FLORIDA: H. E. Caufield, St. Petersburg; **Forrest E. Johnson**, Cocoanut Grove; **Geo. A. Backus & Sons**, Fort Pierce; **Bryant & Gray**, Palm Beach; **Motive Parts Co. of Florida, Inc.**, Tampa; **Atlantic Boat Yards**, Miami; **Marshall Boat Co.**, Pensacola; **Matthews Boat Co.**, Daytona; **Gibbs Boat & Engine Co.**, Jacksonville
ENGLAND: The Buda Company, 75 Evershot Road Stroud Green, London, N4
AUSTRALIA: Grimley Ltd., Broadway Avenue, Sydney
JAPAN: Andrews & George, Central Post Office Box F 23, Tokyo
SOUTH AMERICA: Manuel Peraza, Bogota, Colombia

Branch Offices

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311 E. Second Street . . . . Tulsa, Okla.
664 Mission Street . . San Francisco, Cal.

THE BUDA COMPANY
Established 1881
HARVEY (Chicago Suburb) ILLINOIS

BUDA MARINE POWER

The Search for Ship Timber

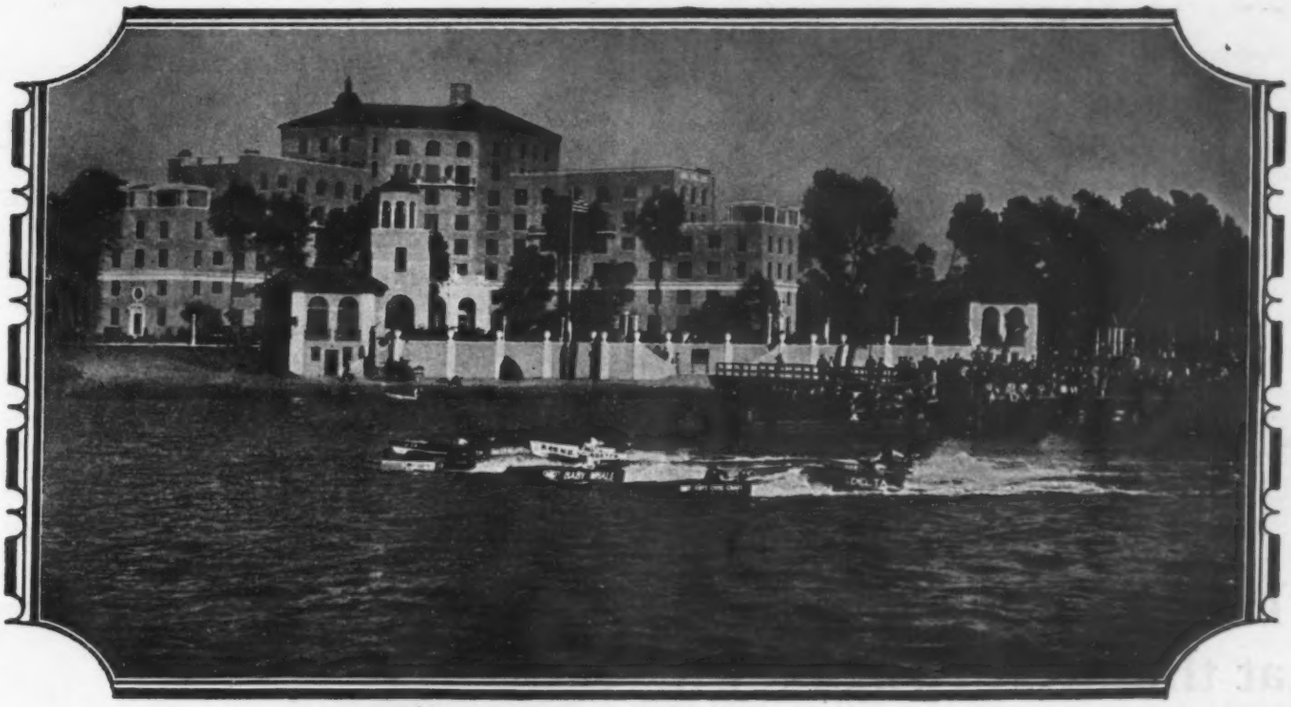
(*Continued from page 52*)

that the new teak ships might drive their yards out of business. Teak was the only timber which the British generally recognized as superior to their own precious "heart of oak."

In the meantime, the young American navy and merchant marine were making use of the live oak and cedar which the British had so long neglected. The government set aside Blackbeard's Island, off the coast of Georgia, to ensure a supply of live oak for the navy. Some of this timber found its way into the hull of the *Constitution*, and it proved so tough that the enemy shot bounced off harmlessly, giving her the name of "Old Ironsides." Live oak, mixed with cedar for lightness, continued to be used in the best ships turned out in the American yards.

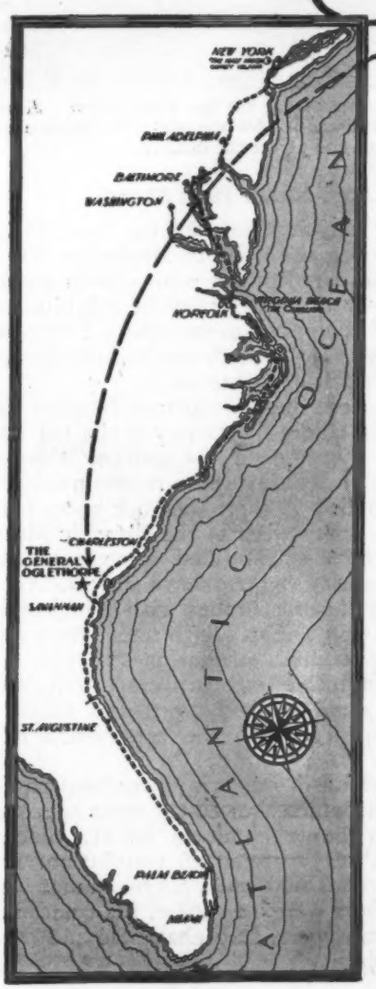
The question of masts was less complicated. Trees suitable for this purpose naturally had to be straight, strong and supple. Except in the case of fir, timber for masts and hulls came from entirely different trees. The English had a difficult mast problem from the start, for all Britain grew no tree fit for good masts. Gradually, they turned to three sources. The little spars came from the spruce of Norway. The little sticks were tough, but the fiber of the tree was too coarse for large masts. "Middling" masts, up to two feet in diameter, came from Baltic fir, especially from Riga. These sticks were recognized as the finest in the world, but they were not large enough to serve alone as masts for the ships of the line. Consequently, England turned to America for the maximum sizes. The pine forests of Maine and Canada were full of splendid mast material, and furnished a regular supply of great sticks, sometimes 40 inches in diameter. The white pine was not as strong as the Baltic fir, but it made up for this with its size and light weight. For more than a century all the great masts used in the royal navy came from the forests of Maine, and those same forests supplied American shipping. The naval supply was cut off during the Revolution, and the navy suffered severely because the stock of great sticks was soon exhausted. There were Maine pine masts in most of the great sea fights of the sailing ship era, and wherever American commerce went, one found masts that had been cut on the Piscataqua or the Kennebec. Maine shipbuilding outlasted the pine forests, and in later days, Bath shipwrights sent to the South and even to the Pacific Coast for masts which had formerly grown on the banks of their own river.

A shipbuilder of the Revolutionary period would be amazed at the strange woods which find their way into the craft of today. He thought only in terms of oak, fir and pine, with a little elm or beech now and then. Lloyds' specifications for wooden vessels would certainly give him a surprise. It recognizes 75 different woods — with teak easily heading the list — as suitable for ship timber, and good enough to keep a ship in the highest rating for 16 years. In the 12-year class are both the English oak and live oak. Altogether, the English recognize a dozen different trees as peers of Sussex oak, and the Americans would incline to give a still higher rating to their live oak. The 10-year class contains strange names, doubtless unheard of by the old shipwrights — "sabicu, vanatica, thingam, pubutukawa, molave, dungon, yacal, mangachapuy, betis, ipil, guijo and palomeria de la playa." All those outlandish woods outrank red cedar and Baltic oak, which, in their turn, are considered better than American white oak. There may still be some prejudice in those lists, but they represent the results of centuries of experimentation. The toughness of the new rivals may give them high places in the hierarchy of woods, but whatever the modern manuals may say, oak will always be remembered as the great ship timber.



Stop Here - - -

on your cruise through the Inland Water Route



YACHTSMEN plying their way from North to South find the anchorage at the General Oglethorpe Hotel an ideal stopping place . . . Here on the Wilmington River—between Savannah and the sea—this fine new hostelry beckons you from one enchantment to another . . . Under a balmy sun one can cruise the sparkling tidal streams or revel in the perfection of a luxurious bathing pool, directly in front of the hotel . . . Abundant fishing off the dock . . . Golf on a picturesque eighteen-hole course . . . Tennis, too, on fast clay courts . . . Hunting, horse-back riding, motoring—all are available.

A modern, fire-proof hotel offering every luxury of appointments, service and entertainment . . . 200 rooms with unrivalled views . . . American Plan.

Write for rates and descriptive booklet

The GENERAL OGLETHORPE

American Hotels Corporation N.Y.

SAVANNAH GEORGIA

Leave Your Fire Worries at the Motor Boat Show

THE dread of fire, that often lurks at the back of your mind when at sea, can now be banished forever. Any runabout, sea sled or motor boat can be protected from destruction by fire with the Lux System.

The new units of the Lux System for small boats will be introduced at the Motor Boat Show. They differ radically from all other extinguishing devices.

Lux equipments work through fixed piping systems. They are released by hand from a remote part of the boat — outside of the fire zone.

Above all, they completely extinguish all fires — blazing oil — fire in flowing gasoline — in five seconds.

See Lux extinguish fire in a motion picture at Booths No. 75 and 76

Walter Kidde & Company, Inc.
140 Cedar Street
New York

LUX

The Only Underwriters' Approved
Yacht Fire Extinguisher

The Winter Regatta at San Diego

(*Continued from page 42*)

LIMITED 151-CLASS

Angeles I	Harry A. Miller	Ralph Snoddy	1100	47.12
Kathleen	J. H. Glass	J. H. Glass	600	41.67
Happy Heiny	Ralston Cunningham	Otto Ranft	250	39.61
Houston Girl	Henry Falk	F. H. Robison	170	35.93
Esmaral III	Al Mac Leod	Al Mac Leod	25	37.19
Miss San Diego II	D. W. Campbell	Vernon Walker	20	30.73

CLASS B OUTBOARDS

Cappy Ricks	Harry Barnes	Harry Barnes	500	27.08
Wildcat	Clem Stose	Clem Stose	225	23.46
Cute Craft II	Frank Benham	Homer Barr	200	21.40
Oh Kay	Wm. Mc Donald	Wm. Mc Donald	150	16.66

CLASS C OUTBOARDS

(FIRST FIVE OF THE 26 STARTERS)

Mimi	Ralph Lacoe	Ralph Lacoe	500	28.71
Gold Rush	B. H. Hebgan	B. H. Hebgan	300	28.96
Comet	Thos. H. Rhodes	Thos. H. Rhodes	128	28.26
Cappy Ricks	Harry Barnes	Harry Barnes	83	29.88
Cute Craft	Kneeland Jenkins	Kneeland Jenkins	56	24.50

RESULTS OF RUNABOUT RACES:

Chris-Craft	Howard Motor Co.	J. W. Haynes	400	36.32 (Winner 150 h.p.)
Kay Dee Special	Wash. K. D. Boat Co.	Q. Williams	400	31.37 (Winner 100 h.p.)
Jack Knife	King Vidor		100	26.99 (Second 100 h.p.)

Miss Spitfire V **and** ***Houston Girl*** **at the San Diego show.** ***Houston Girl*** **is shown on the trailer on which she made the trip over the mountains and across the desert.**

The San Diego Motor Boat Show

The second annual Pacific Coast Motor Boat Show, held at San Diego during the week of December 5th to 9th, may not have compared in size with similar events on the East Coast — but the diversity of exhibits was probably as great and the novel means adopted by some of the exhibitors in bringing their products from distant points gave a note of additional interest.

For example, there were the hydroplanes *Houston Girl* and *Kathleen*, exhibited before their entry in the 151-inch class races. Both of them made the journey through mountain passes and across sandy desert roads on trailers, towed behind automobiles. A short distance away from them was the 42-foot stock cruiser of the Olympic Motor Boat Corporation, which encountered some unusually nasty weather while making the trip down the coast from Seattle to San Diego, but came through with flying colors. Other craft made the trip to San Diego under their own power; some came by steamer, smaller ones by rail, and some of the more diminutive outboard craft arrived on top of automobiles, snugly lashed down and giving a strangely aquatic appearance to the cars which bore them.

Significant of the trend in modern power boat equipment, were the exhibits which showed the most approved manner of obtaining home comforts afloat. Electric refrigerators, forced-draft systems of ventilation, fire-fighting equipment, radios and small player pianos were all on display. And there were, of course, the customary exhibits of sailmakers, riggers, ship chandlers and other dealers in marine supplies.

REFINEMENTS

characterize the 1928 Darts

SUPERIOR craftsmanship has always been inseparably linked with the name Dart . . . 1928 brings improved designs, even finer construction features and appointments, and —in addition to the 22½-foot and 26-foot models—a new 30-foot Dart Runabout . . . Dart Outboards round out the line—the 12-foot Lockwood Skimmer and the 14-foot Baby Stepper . . . Ask for descriptive literature.

INDIAN LAKE BOAT COMPANY • INCORPORATED

348 East High Street • Lima • Ohio

The DART RUNABOUT

Permanent Dart Display Rooms at

NEW YORK	BOSTON	PHILADELPHIA	CHICAGO	MIAMI
Bruns Kimball & Co.	Atlantic Radio & Marine Co.	Bruns Kimball & Co.	The Motor Boat Mart	Atlantic Boat Yard Co.
50 West 17th	20 Brookline Ave.	102 So. 4th	1725 Diversey Blvd.	243 S. W. 6th

Consider these

whistle facts

about this noisy Cunningham

1 Maximum clear weather range of 12 miles . . . penetrates thickest fog . . . remarkable echoing power!

2 Decidedly economical in cost and operation . . . uses one tenth energy usually required.

3 Simple, rugged and indestructible . . . the Cunningham has only three parts . . . cast in bronze.

4 Amply drained . . . cannot freeze . . . the Cunningham patented air whistle is dependable under *all* conditions.

5 Made for every size and type of craft. Now in use on hundreds of largest vessels and thousands of small motor boats.

Prepare NOW *for your spring replacements!*
Address Dept. Y 2 for Whistle Booklet

ALLAN Cunningham Seattle

124 West Massachusetts Street

Fairbanks, Morse & Co., Boston, New England Distributors
Geo. H. Jett, 526 Columbia St., Brooklyn, N.Y.,
New York Distributors

A number of handsome cruisers, embodying the last word in comfort and efficiency, as well as the latest models in gasoline and Diesel engines were on display. Hulls for outboard racing were there in number, and there was one outboard model which served as a sort of connecting link between the tiny craft and their big brothers — an outboard cruiser, of diminutive size, but with clean lines, a seaworthy appearance, and two comfortable berths.

The idea of a motor boat show on the West Coast first took definite form during the "151" regatta in San Diego a year ago. At that time the Pacific Coast Marine Trades Association was formed and plans for an annual show were formulated. The phenomenal growth of yachting on the West Coast leads us to believe that the shows of the future will be as much ahead of this year's exhibition as this one was ahead of its predecessor.

Ice Yachting in the Northwest

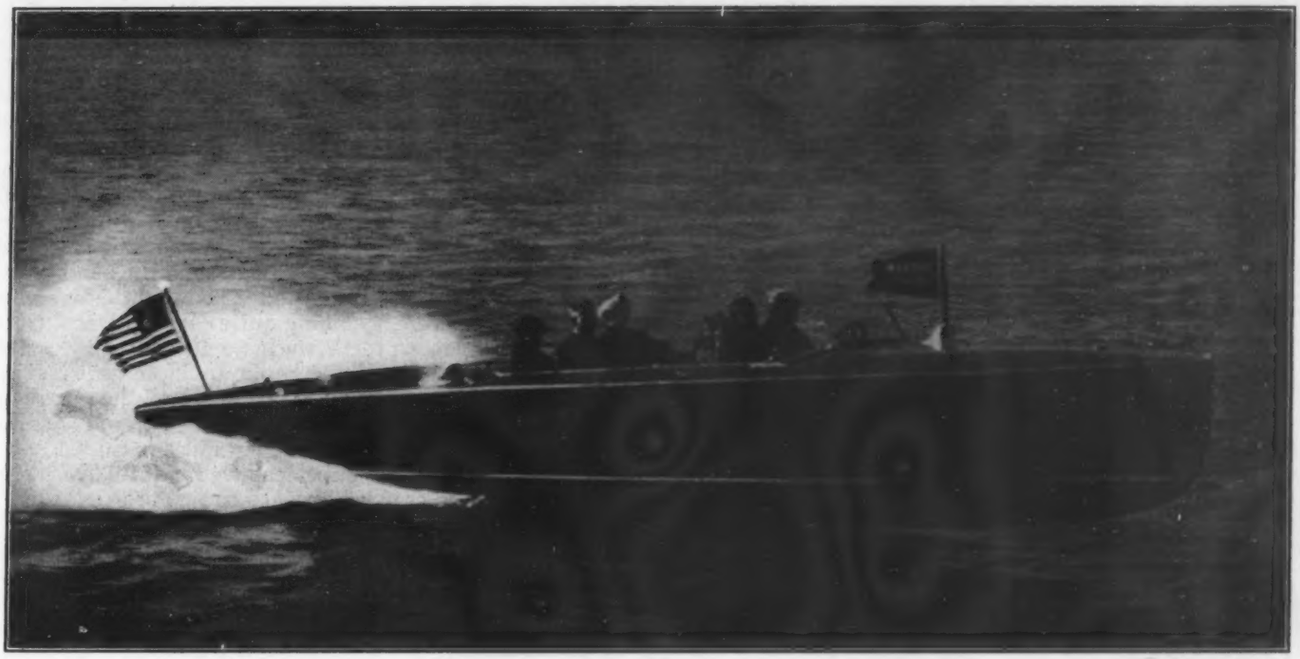
(*Continued from page 56*)

boats were built, but none could compete with the newcomer from the East. In desperation the Menominee Club bought Commodore Higgins's famous *Aurora*, of Red Bank, New Jersey, and shipped her to Oshkosh for the North Western Regatta, but she could not touch the slippery *Debutante*, which seemed almost unbeatable, and interest in the larger class soon lagged. These large boats were hard to transport, were costly and very dangerous in fleet sailing. But the smaller classes grew in popularity and in our recent regattas 20 or 30 boats have reported at the starting line.

Because of the exceptionally fine record of *Debutante III* she was groomed for the Stuart International Cup and taken to Gull Lake, Michigan, to race against the Kalamazoo Ice Boat Club. In a series of three races, in all kinds of wind, she easily out-distanced the famous *Wolverine*, bringing back this coveted challenge cup for the Oshkosh Ice Yacht Club. The Oshkosh club has been challenged twice by the Pewaukee Ice Yacht Club and has successfully defended this cup each time. It is interesting to note that the challenger, *Miss Milwaukee*, carried a high gaff rig the first year. The following year she sported a leg-o'-mutton sail. At no time was the cup in danger of leaving Lake Winnebago.

The larger boats in the Northwestern Association no longer exist, having given way to the popular 350-foot class which provides all the thrills that the huge monsters offered. The B class boats, with 250 feet of sail, are very fast and are popular on the smaller lakes. Practically all of our boats have solid timbers and spars. There is no rule against hollow spars, but as yet no decided advantage in their use has been noted, particularly in the 350-foot class. We have no ice boat factories and the crews themselves build most of the boats. Some very fine sails of the finest yacht duck are imported from the East, although a few are made in the West. The runners are generally of white oak with a cast iron shoe. Some duralumin with stainless steel inserts is also used, but as this metal is rather expensive it will probably not prove popular. Several new A's and B's will make their initial appearance at the North Western Regatta to be held at Oshkosh in February. The *Debutante III* will again defend the Stuart Cup against a new Detroit boat, about which little is known.

It is gratifying to those who pioneered the N. W. I. A. to have so many clubs throughout the country adopt its rules and classes. Ice boating is a thrilling sport and should take its place as an excellent winter pastime. In the past there was no attempt to standardize classes, with the result that many boats of different size were built, making interclub racing impossible. Now this is changed, as I have stated above.



A 29-ft. Hacker Dolphin for 1928

JOHN L. HACKER, dean of American speed-boat designers, has produced his greatest masterpiece in the new 29-ft. Dolphin, furnished in both runabout and sedan models. Two smaller runabouts in 24- and 26-ft. lengths round out the complete Hacker line for 1928.

Descended from a long line of famous Dolphins, and from a greater fleet of several hundred celebrated race winners and custom-built runabouts designed and built by Mr. Hacker for well-known sportsmen, these latest Dolphins are easily the best designed, best built, most beautiful standardized runabouts ever offered.

Hackercraft have always excelled in refinement, speed and efficiency of hull design. John Hacker originated most of the features now used in all runabouts of this class. He is the most copied motor-boat designer in the world. So it is not surprising that his new models embody many original improvements and refinements in design, construction, finish and equipment not found in any other boats. They are at least a year ahead of the market.

29-ft. Dolphin Runabout $4950 **29-ft. Dolphin Sedan $5850**

Eleven Passengers Sterling Petrel Motor

26-ft. Dolphin Jr., Nine Passengers, Scripps 200 h.p. Model H-6 motor, $4275

24-ft. Baby Dolphin, Nine Passengers, Scripps 125 h.p. Jr. Gold Cup Motor, $2975

All prices f.o.b. Mt. Clemens, Mich.

You must see these beautiful boats. Examine them carefully at the Boat Show. Or stop in at our nearest showroom and compare them point for point with the finest boat you ever saw.

COMPLETE DATA MAILED ON REQUEST

HACKER BOAT COMPANY

Mt. Clemens, Michigan

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Hotel Barclay, 532 Lexington Avenue
NEW YORK

DISTRIBUTORS

WALTER H. MORETON CORP.
1043 Commonwealth Avenue
BOSTON

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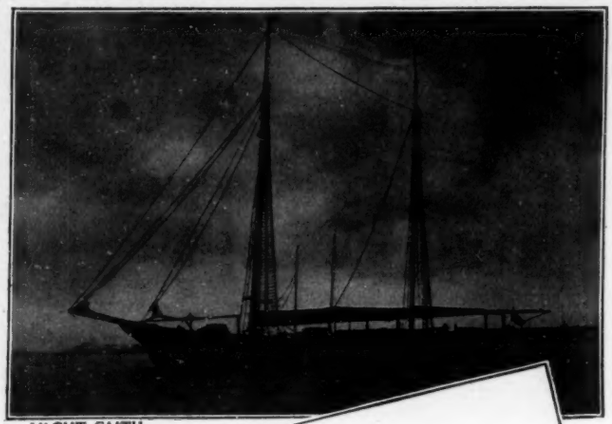


YACHT FAITH

JOHN G HANNA
NAVAL ARCHITECT
DUNEDIN FLORIDA

May 31, 1927

Brunswick-Kroeschell Co.
New Brunswick, N. J.

Attention Mr R L. Tomlinson
Marine Dept.

Dear Mr. Tomlinson:-

Yacht Faith arrived at San Francisco April 26th, having covered approximately 7,800 miles, visiting Bermuda, Florida, the West Indies, and Panama.

Such a trip furnished a very thorough test of her Brunswick-Kroeschell equipment. You will be pleased to know that its performance was of such a nature that Mr Shaw, the owner, could tell me the whole story in these few brief words: "The refrigerating equipment worked wonderfully and gave absolutely no trouble"

Yours very truly

John G Hanna

BRUNSWICK-KROESCHELL COMPANY
Refrigerating & Ice Making Machinery
NEW BRUNSWICK, N.J. - CHICAGO, ILL.
BRANCHES, AGENCIES AND SERVICE IN PRINCIPAL CITIES

Down the Mississippi in the *Minnemo*

(*Continued from page 49*)

up-river ports. At three points, Prescott, Wabasha and Winona, we found that outboard engines are sold and serviced by well equipped boat livery organizations.

Winona, Minnesota, the largest town we had encountered since leaving St. Paul, is a delightful place. The atmosphere of decay which permeates so many of the river towns is here conspicuously absent. Somewhat reluctant to leave, we cast off and were soon around the bend below the town. The wind had not diminished and the stretches of open channel were becoming quite choppy. Despite the increasing wind in her teeth, the little *Minnemo* made good progress. Since leaving Lake Pepin a stiff current had assisted our progress and while, in a measure, the upstream wind nullified the current, we seemed to travel steadily down stream at a rate of about ten miles per hour.

A few miles below Trempealeau we ran into a very stiff breeze. The mate crawled forward to tie our canvas more securely. Spray began to cascade over the *Minnemo's* bows and after catching the tops of one or two whitecaps full in the chest as I sat in the stern seat, I decided that, rather than carry on against the wind and make camp with wet equipment, we would put in behind a wing dam and either wait until the wind moderated, or stow all equipment snugly beneath canvas before proceeding.

We landed under a precipitous bluff from which a series of wing dams projected. On the windward side of the dam behind which we landed, the wind-swept water was breaking with the sound of a small cataract. The top of the dam lay just even with the water's surface. But in our corner, between the lee side of the wing dam and the bluff, the water was a gently rippled pool. Putting the rubber sheet and some cushions ashore, we loafed and explored and wrote and took pictures. Instead of dying out as the sun sank beneath the bluff, the breeze increased to a small gale blowing up stream at a rate of 25 or 30 miles per hour. A little, motor-driven flat-boat struggled down stream against the wind, towing a small barge and making heavy weather against the seas. By this time we had decided to stay dry and spend the night in our comfortable haven. Securing the bow anchor among some stones on shore, the stern line was tied around a sizeable rock and, with her stern anchored just far enough offshore to keep her well afloat, the *Minnemo* was snuggled down for the night.

When we awoke at dawn the breeze had completely died and the waters were scarcely rippled. To stow canvas covers, lift anchor and start the engine was the work of a few minutes and, long before the sun illuminated the crests of the bluffs, we had swung around the end of our wing dam and were well below the blinking buoy on our way toward LaCrosse.

Below LaCrosse, as above, the glacial valley is several miles wide and the channel winds among innumerable islands. It is well to watch the channel markings, even though you pilot a slow, shallow craft and are favored with high water. Below Genoa, Wisconsin, the channel lay along the west side of the valley. I had noticed a crossing marker, but, as the channel appeared to lie straight ahead between an island and the mainland, I did not look sharp for the next marker down stream. But just as we rounded the bend below the island I saw broken water ahead. Putting her helm hard over I brought the *Minnemo* about before we ran onto the dam. Heading back up stream to the marker, I looked through the passage above the island which I had assumed to be a slough and there, at right angles to our course, I saw the down stream crossing marker.

Much time may be saved by cutting corners on the crossings and in many places this can be safely done with a small craft, particularly when high water prevails. But it must be remembered that high water brings its own ele-

Giving Wings to Water Travel

The NEW Giant Twin

Imagine, if you can, an outboard motor which is a complete power plant in itself—with magneto, carburetor and all advanced outboard refinements—with a piston displacement of 49 cubic inches—developing 25 horsepower—delivering amazing speeds—and weighing only 120 pounds! Imagine it if you can.

Write for detailed information on the specifications and possibilities of the New *Giant Twin* or ask any Johnson dealer. Price $275

The Light Single

World's lightest weight outboard—26 pounds. Price $115

The Light Twin

World's record Class A outboard—15.32 m. p. h. Weight 37 pounds. Price $140

The Standard Twin

World's record Class B outboard—26.36 m. p. h. Weight 55 pounds. Price $165

The Big Twin

World's record Class C outboard—32.323 m. p. h. Weight 85 pounds. Price $210

Standard, Big and Giant Twin racing models at slightly higher prices.

The day of the oar is past. Crawling craft of yesteryear are animated boats today. *Johnson has given wings to water travel.* Development of the Johnson motor has been a continuous succession of sensational achievements. Never has a year gone by but Johnson has made some far-reaching improvement in its original fine motor. This year is no exception.

We who have watched the secret trials of the Johnson models for 1928 know what you are soon to learn: that the performance of these models will amaze the motor-wise.

They develop 35% more power than before. They are quieter in operation. They have Lynite pistons and steel connecting rods. They have an improved magneto with hotter spark giving utmost ease in starting.

You will experience a new thrill in the silken-smooth power developed at high speeds in the 1928 Johnson models. They shatter all previous conceptions of outboard performance—adding another to the impressive list of reasons why more than half the outboard motors sold are Johnsons. We will be pleased to send you full particulars of Johnson's unprecedented refinements.

JOHNSON MOTOR COMPANY, 3653 Pershing Road, Waukegan, Illinois

Export Division—75 West St., New York, N. Y., U. S. A.

Canadian—Peterborough Canoe Co., Peterborough, Ont., Canada

Johnson
Outboard Motors

WORLD'S LARGEST MANUFACTURER OF OUTBOARD MOTORS

THE 60-FOOT TWIN-SCREW CRUISER

Another Fine Great Lakes Craft

HERE is a sixty-foot custom built cruising yacht possessing, to an unusual degree, those niceties of construction and finish for which Great Lakes Craft are noted and which contribute so largely to the enjoyment and pride of ownership.

The two large staterooms together with the wide extension transom in the deckhouse provide comfortable sleeping accommodations for seven. The deck saloon is pleasant and well appointed while the spacious after deck is an inviting spot on which to while away a delightful summer day.

The separate semi-enclosed navigating bridge aft of the deckhouse giving perfect vision, the roomy and well ventilated engine room separated from the rest of the boat by water-tight bulkheads, and the conveniently located galley all reflect the thoughtful care and practical experience which have gone into this design.

An attractive appearance, beautiful finish, a speed of fifteen miles or more depending on power installed, thoroughly proven seaworthiness, dependability, safety, and comfort; all are united in a perfect combination for an enjoyable season afloat, at a price which will be a pleasant surprise.

May we tell you more about this splendid craft? There is still time to order one for this season's delivery.

GREAT LAKES

BOAT BUILDING CORPORATION

3250 NORTH WASHTENAW AVENUE

CHICAGO

"BUILDERS OF THE FINEST YACHTS"

ment of danger by partially or completely covering many of the dams, levees and jetties. Discretion must be used in cutting crossings and it is well to keep inside the channel buoys, because many of them mark the ends of jetties and it is an unpleasant experience, when running down stream in a flood current, to strike full-tilt upon a partly submerged rock dam. Our experience below St. Paul gave us a wholesome respect for channel markings and, while we cheated quite a little, cutting crossings and running through sloughs and over submerged slough dams, the engine was tilted and the oars were manned as we floated over dams. When the current was swift and any doubt existed, we followed the channel markings pretty religiously, with the result that, when we reached home, we had only one sheared propeller pin to our discredit.

Below MacGregor the divided channels reunite into a magnificent expanse of water and just below this point the Wisconsin River contributes its volume to the stream. Like the Chippewa, the Wisconsin was pouring into the channel an enormous volume of flood water. We headed up against the Wisconsin flood and found a delightful spot upon which to build our camp fire above a "cut bank" along which we tied up and spent a restful night.

Getting away to our usual early start on Sunday, we shot down the Wisconsin flood into the Mississippi. Soon sunrise gilded the towering bluffs and flooded the wooded islands. During the morning the hand pump for transferring fuel from the large tank to the engine failed to function. Examination disclosed the fact that the leather

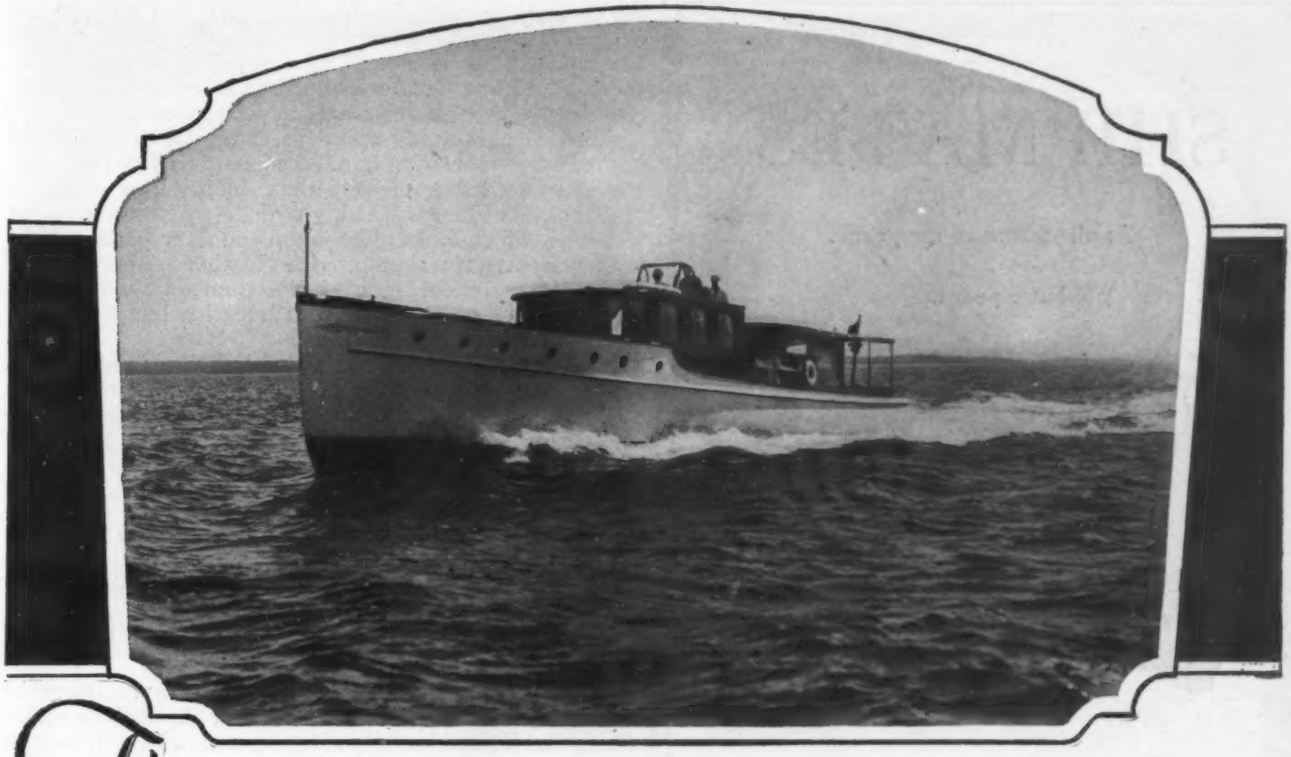
A crossing sign or "target."

washers had worn away, but temporary repairs were effected by a wrapping of cotton cord.

Just before noon we saw the bridge which spans the river above Dubuque. On a scow was displayed the well-known Red Crown sign and, as our fuel supply was quite low, we put in to fill our tank. While high-test fuel does encourage a cold Elto to start a little more readily, one need have no fear of any real difficulty as a result of using standard grades of motor car fuel. Fully half our journey was run with standard fuel and, thanks to an effective ignition system, no difficulty developed, in spite of the handicap of several over-doses of oil mixed with our fuel.

Dubuque brought us within 75 miles of home as the motor car rolls, but by river we had before us more than 100 miles — three hours by car or ten hours by boat; monotonous, crowded, concrete road or ever changing, lonely expanses of water, and hills and islands and trees. What price speed when the choice lay thus?

With a cheerful chatter, the faithful little motor took up its burden of labor. We shot out of the slough, across the river into the steamer channel and down stream under the bridge toward our Sunday night camp. Abandoning



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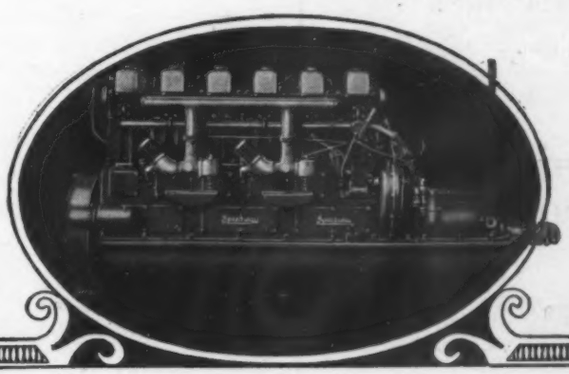

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the channel, we passed behind an island and through the slough. As we saw broken water where the dam lay across the lower end of the slough, we stopped the engine, tilted the propeller out of water and drifted across with probably less than eight inches of water under the keel.

Sunrise on Monday found us chugging away toward home. We were nearing familiar country. Below Dubuque the bluffs are less impressive than the towering palisades and rocky headlands which guard the stream above. At Bellevue, which looks down upon the river from a steep enbankment, a tire shop provided leather washers for the fuel pump and these made it better than new. Never again will I install a gasoline pump with leather lungs. A metal piston is absolutely essential.

The sky was half overcast with light clouds and a breeze began to blow up stream. We ran through the sloughs along the Illinois shore to avoid the wind and the chop. Slowly up stream came a little gasoline tow boat, pushing a barge loaded with barrels. Here was virtually the only example of commercial navigation encountered in hundreds of miles of river!

Sand dunes lay along the Illinois shore and indicated that Savanna and the Federal proving grounds lay a few miles down stream. At noon we were off Savanna and at 2 o'clock we passed under the bridge upon which the Lincoln Highway crosses the river from Fulton, Illinois, to Clinton, Iowa.

We were now approaching the LeClaire rapids. Here the river drops some 15 feet in a distance of about three miles. Along the Iowa side of the river lies a canal. At its head is the town of LeClaire, while directly opposite is the village of Rapid City, Illinois. A deep channel marked by buoys and stone monuments runs through these rapids, crossing from the head of the canal diagonally toward the Illinois shore. Steamboats use the canal as they go up stream but, unless the stage of the water is quite low, they often run down stream through the rapids. As we followed the channel from Port Byron across to LeClaire, the current became noticeably swifter. Disregarding the double row of buoys which marked the path into the canal, we shot down stream outside the canal embankment. Here the channel is marked by a single row of great monuments of masonry, with only an occasional buoy to mark an abrupt change in the channel's course. The undertow boiled up through the surface, lending to the water a heaving, restless aspect. Soon we were opposite the canal lock. A short distance downstream was the little village of Pleasant Valley while opposite, on the Illinois shore, lay Hampton.

Now we saw the familiar landmarks of home. Keeping in the channel and taking full advantage of the swift current, we hurried past Campbell's Island and toward the Moline rapids just below us. The faithful engine carried us rapidly past familiar scenes and *Minnemo's* home landing was in sight. Swinging out of the channel and across the lower end of Campbell's Slough, we headed for our own landing. As the Elto was stopped and *Minnemo's* bow scraped the sandy river bank, we had spent just seven days in our down-river pilgrimage from Minneapolis to Moline — delightful, sunny days — a perfect holiday. So home we came, already dreaming of future journeys over inland waterways in the *Minnemo*.

Books for the Yachtsman's Library

(*Continued from page 74*)

has given us a story that will stand as a valuable chronicle of the days of sail — a group of life histories that will serve to give those brought up in the commonplace tradition of steam and oil a glimpse into an age already glamorous with adventure and romance as it recedes into the past.

The record is illumined by graphic descriptions of the ships and of the men who served with them, while colored illustrations showing each vessel — the work of Mr. Jack Spurling — add to the beauty and interest of a work memorable in its field.

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POWERED BY GRAY

"SPORTABOUT"

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RIDING on the crest of well-earned popularity, the Richardson exhibits at the Show have demonstrated that good boats are not expensive and that comfort and class can be found within the reach of every water lover.

The instant popularity of the Richardson Cruisabout at the last show presaged certain popularity for the new Master 28-foot Cruisabout shown this year. The greater length and beam permit many new refinements, comforts and conveniences so essential to motor boating at its best!

Even more startling in its departure from the conventional is the "Sportabout," the sport model companion boat to the Master Cruisabout. Radically different from all previous designs, the "Sportabout" is destined to set a new standard in "sporty" cruisers.

Write now for detailed description.

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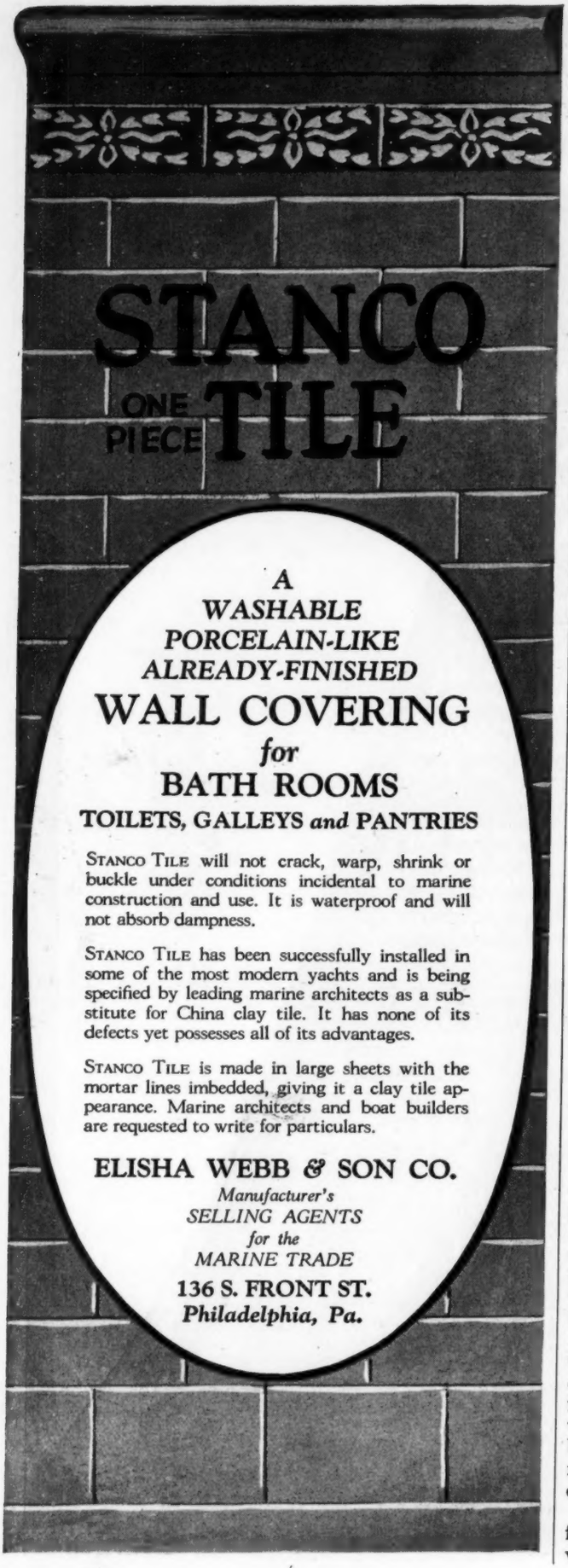
PHILADELPHIA, Marine Equipment & Supply Co., 116 Walnut Street

CHICAGO, A. M. Deering, 1642 Monadnock Bldg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for the
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Breaking a Date with Saint Peter

(*Continued from page 45*)

and so on, filled the air. Some even went so far as to accuse our worthy supply officer of planning to swim ashore and abscond with all the ship's money. Others desired to be paid immediately, it being the 15th, and officers' pay day. Finally the hullabaloo quieted somewhat, and I decided to go on the bridge, especially since I suddenly discovered that the steam pipe to the winch on which I was sitting had live steam inside of it.

The wind had shifted slightly, from N.E. to E.N.E., but blew harder than ever. Dimly astern could be seen the towering blackness of the shore, now less than 150 yards away. Our tall smoke pipe quivered before the squalls while the belching black smoke told us that the black gang down below were still on the job. Ignorant of what went on above, except for an occasional brief message, and not knowing when a jagged rock might spurt up through the floor plates, they stuck grimly to their tasks, squeezing the last revolution possible from our tiny turbine and its racing propeller. Many were the curses heaped that day on the heads of those who ever designed a ship "with nothing but a blankety-blank washing machine to run her." If we had but had the horsepower of a decent tug boat it would have been child's play to hold our own. To make matters worse the continued jarring and pounding by the seas had started condenser leaks, and the water in the boilers was getting saltier at an appalling rate, further reducing our steaming capacity.

At 11:15 A.M. we had already sent out radios of our perilous situation. The salt spray had weakened our sending power, due to the soaking of the insulators, but communication was established with the American S.S. *West Holbrook* and the Japanese *Mandasan Maru*. Shortly after this our anchors commenced to drag again, inch by inch, and an S O S was broadcasted, repeated again at 12:00 noon. "U.S.S. *Asheville* in danger off Namki Island, all anchors out, engines going full ahead, and anchors dragging." As the skipper said, "Not that it will do any good, but the folks will know what happened."

Nevertheless back came the doughty reply from the *West Holbrook*. "Am light and unmanageable, but will come if I can help."

To bring a "light and unmanageable" cargo steamer into that rocky maelstrom would have been sheer suicide, but the spirit prompting that reply was sublime, and it made us glow with pride in another Yankee seaman and his crew for even considering it.

The barometer was now down to 28.50, and still falling. Would it never stop? Our only hope now was that the slowly dragging ground tackle would last until the center of the typhoon had passed, bringing with it the accompanying 180 degree shift of wind. The storm center of a typhoon is nothing to look forward to expectantly, yet we did, for it meant life or death to us all. Even the two-point shift in the wind was against us. Previously our stern had been pointed fair for a small passage between the rocks. True, it was barred by a row of wicked black fangs, but one of the huge seas *might* have lifted us over them and planted us in the cleft, where some might have been saved. One chance out of ten, but still it was a chance. Now, however, we tailed directly toward a sheer wall of towering granite a hundred feet high, with spray going over the top with every surge. A fly could not have found foothold there, and with the first crash, our steel sides would crumple like an egg shell, and the *Asheville* would be scratched from the Navy List. Well, thank Heavens, my insurance was paid, anyway, and maybe the family could get home on the transport now in Shanghai.

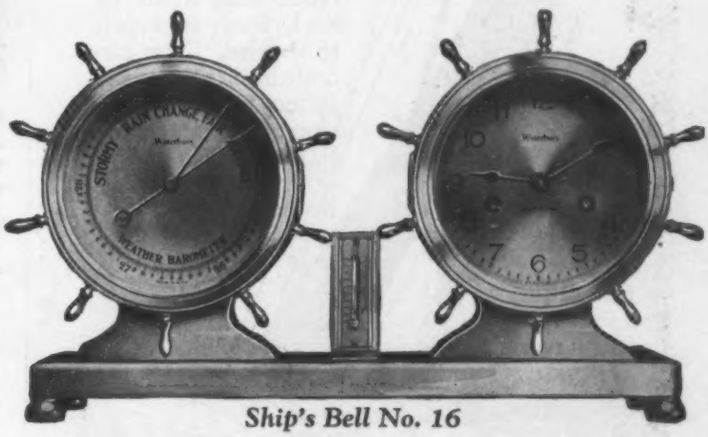
Another look at the anchor gear — dragging myself forward by the lifelines against the terrific pressure of the wind, nearly sweeping me from my feet. That same

WATERBURY CLOCKS at the MOTOR BOAT SHOW

ON BOARD, a reliable clock is a requisite.....in the saloon and in your private quarters. Why not one at home.....in your library or den.....or on your desk at the office?

None but quality clocks, of course.....good, dependable timekeepers, handsome in design and execution.

You'll find all these qualities in the Waterbury yacht clocks. Besides, they're moderately priced.



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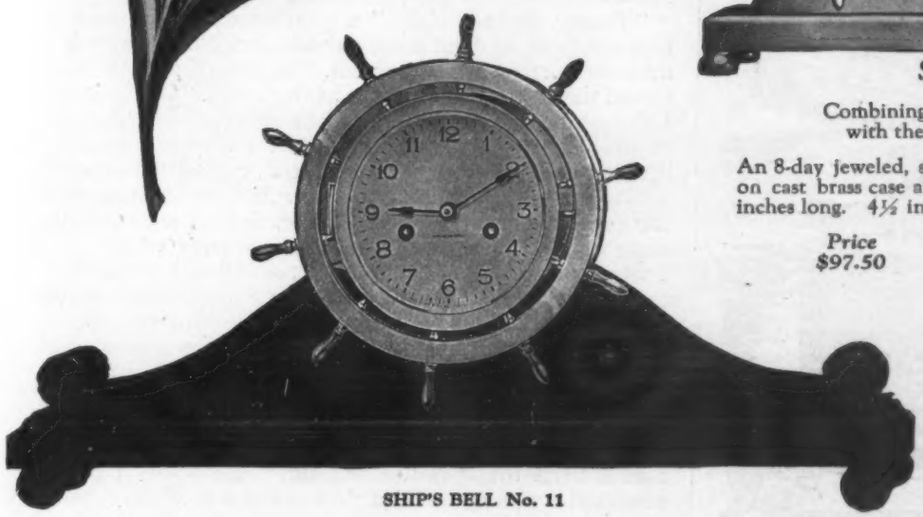
Combining the SHIP'S BELL Striking clock with the Barometer and Thermometer

An 8-day jeweled, self-adjusting strike movement, mounted on cast brass case and base, measuring 8 inches high and 12¾ inches long. 4½ inch Silvered metal dials.

Price	*Bronze finish*
$97.50	*$10.00 extra*



SHIP'S BELL No. 11

Ship's Bell No. 11

The same 8-day jeweled, self-adjusting strike movement as used in the SHIP'S BELL No. 16, illustrated above, fitted in a cast brass case, mounted on a solid Mahogany Base.

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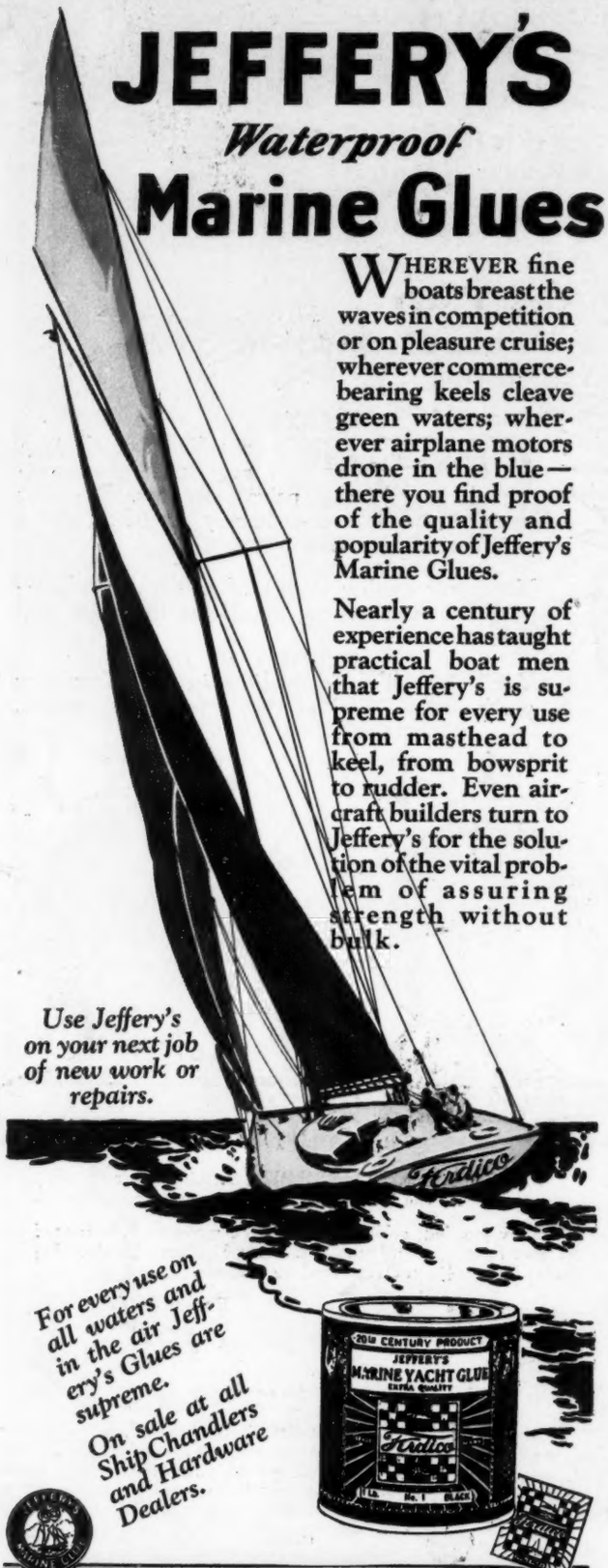

For every use on all waters and in the air Jeffery's Glues are supreme.

On sale at all Ship Chandlers and Hardware Dealers.

L.W. Ferdinand & Co.

152 Kneeland Street, Boston, Mass.

tremor was still felt in the cables, and now the wire hawser tended well forward, showing that we had dragged 50 yards or so at least. Going aft, amid the sheets of spray deluging the deck, the cliffs were more distinct, seeming almost to loom over our heads, as if to crush our puny man-made cockleshell. Not more than a hundred yards now. Would this howling wind ever shift?

Back to the bridge again, and a look at the barometer on the way—28.30 now, and jumping on each side as the quivering needle fluctuated. It *couldn't* go much lower.

We were now yawing badly each way, instead of holding steady in the wind's eye to present the least possible area to the force of the storm, so at the captain's suggestion, I crouched beside the binnacle, back to the bow, to watch the funnel smoke. As it wavered to either side, I warned the quartermaster to meet the yaw. In this way we could catch her before the more sluggish compass showed the change of heading.

With hunched backs to the storm, and streaming with water, we all stood silent, watching the slow yet relentless approach of the cliff astern, which now seemed almost to touch our stern. "Twenty-eight twenty, sir," reported the messenger. We all glanced at one another; then the captain grinned: "One hour more — just one hour." None on board had ever seen such a low barometer, and by now the center must be almost on us. The old "jam factory" smoke stack swayed and trembled before the terrific gusts. Another pleasant thought crossed my mind. Suppose a guy should give way! Or a burned up bearing below, a ruptured joint in the steam line, or a faulty weld in just one link of our cables. We had done all that man could do—the Almighty himself had now taken command.

"Twenty-eight twelve," came the messenger's scream. And that barometer had been corrected in Hong Kong not a month before.

The mountainous seas now were fairly hissing past, their surfaces a boiling mass of turbid yeasty foam, jumping in little jets and bubbles like water in a teakettle. At this stage a large copper Franklin life buoy aft was fairly torn from its rack by the wind, hit the water astern, and *disappeared* underneath, drawn down by the suction. The stinging sheets of rain by now were nothing but salt water, ripped in sheets from the wave crests, and deluging us on the bridge, 25 feet above the water. My lungs ached for a smoke, but my slicker pockets held nothing but a soup of cigarettes, matches and salt water.

"Twenty-eight-O-eight," a quartermaster shouted. A moment later, and our flattened streamer of smoke crept a little to port of the mainmast. "Right a little," I cautioned the lanky Scandinavian at the wheel. "Just a yaw," I thought to myself. But wait, the smoke trail still crept to port. I glanced at the compass. From our previous heading of 55°, we were now on 65°, and still the wind swung to the right. A long gasp of relief, and I shouted in the captain's ear. "Wind's hauling, sir!" The smile that came over all faces then, was certainly not forced.

Slowly the compass card crept around — 70, 80, 90.

"Twenty-eight-O-seven," reported our indefatigable barometer reader. Then "Twenty-eight-ten."

"Aw, throw it overboard," interjected an unidentified voice.

According to the seamanship books, in the "eye" or center of a typhoon comes a lull in the wind, patches of blue sky, and a general short respite before the hurricane bursts from the opposite quarter. Ours being a poorly educated typhoon, we didn't see the sky at all, but then it certainly lived up to the part concerning the increased intensity of the squalls, as the wind shifted.

Between 2:15 P.M. and 2:30, the wind hauled around the 195°, and such a wind! We had thought it was blowing before, but this was positively fiendish. During one trip on the forecastle to inspect the anchor gear, it literally lifted me from my feet, and held me suspended in air for perhaps

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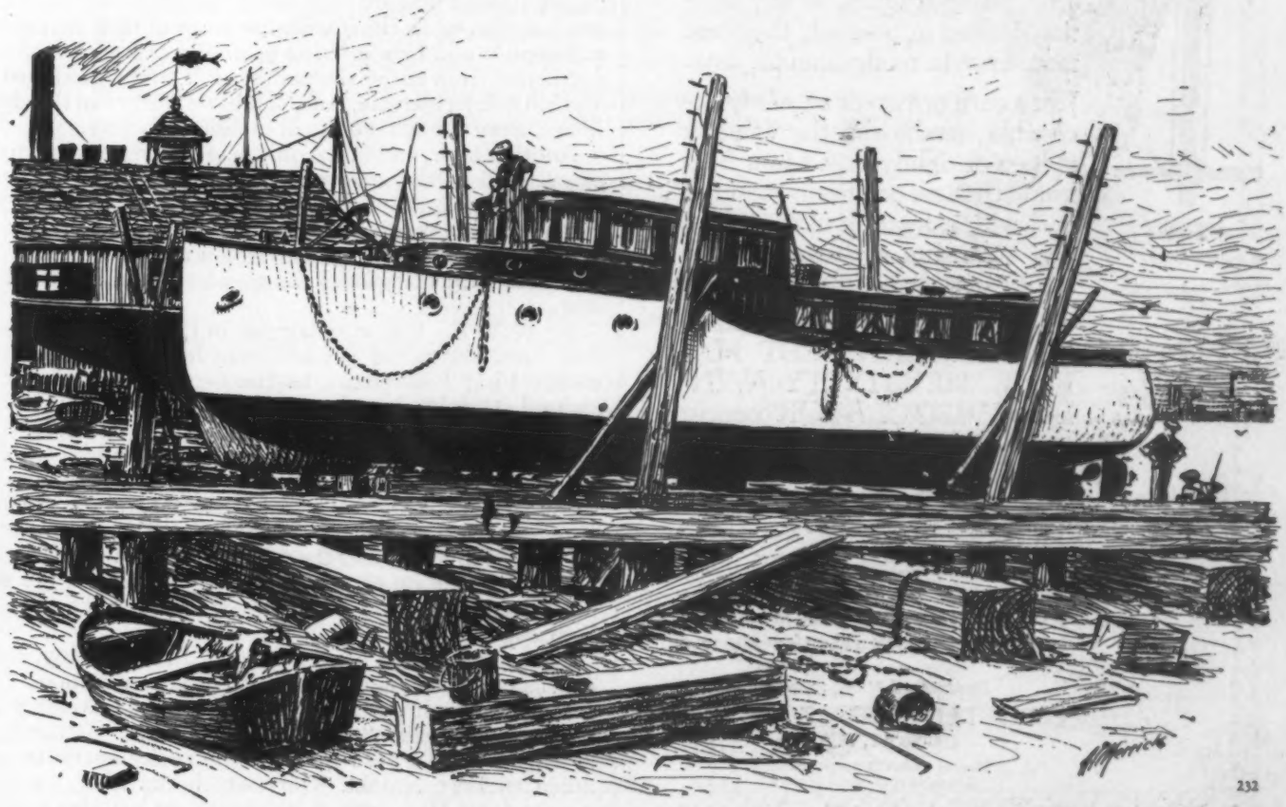

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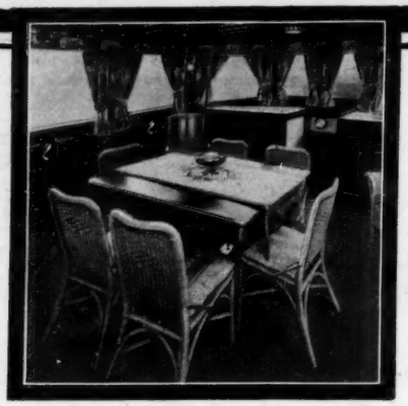

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TERNSTEDT MARINE EQUIPMENT

ten seconds. I think the marks of my hands are still in that life line, for I certainly squeezed the tar out of it. But let 'er blow, and let the seething welter of cross seas slap themselves in geyser-like spouts. Those dreaded cliffs were now on our starboard bow, and instead of 60 yards between us and the pearly gates — or more probably the coal scuttle — there was now nearly a mile of tossing spume astern of us. And the barometer coming up with leaps and bounds.

Still the squalls leaped on us out of the gloom, fairly smoking in their baffled wrath. Our tiny bridge awning had never been furled, and at last the stout stanchions started to bend. This let the wind get under it, and as blast after blast came, we all had visions of being the first to land on Namki by the aerial route.

"Cut her away," ordered the executive, and a lad ran up from the galley with the cook's pet butcher knives. As we all slashed it to tatters the pressure was relieved, but the whipping about of the torn canvas streamers gave us all some mementoes. The poor quartermaster at the wheel was particularly unfortunate, as one broad strip gave him a dozen resounding wallops in that part of the anatomy where children are more accustomed to them than are grown men. Eventually, it was all smothered and the front of the bridge shored by pieces of plank. To give an idea of the fierceness of the wind, the whistle cord was fouled by a flying fragment, and the whistle, not 30 feet from us all, blew for several minutes without being heard.

By 4 P.M. we felt safe in broadcasting our safety to the air, hoping to relieve the anxiety of those waiting for us in Shanghai. We were now holding our own, though it was two hours more when, in the increasing dusk, the engines were slowed to standard speed. The barometer had now ceased its mad upward rush, and took a more dignified and gradual rise, while the squalls lost some of their fierceness, although it still blew a living gale. The captain's boy was extricated from under the pantry sink, and we enjoyed to the full a dry cigarette, coffee and sandwiches in the chart house, even though we sat in puddles of water.

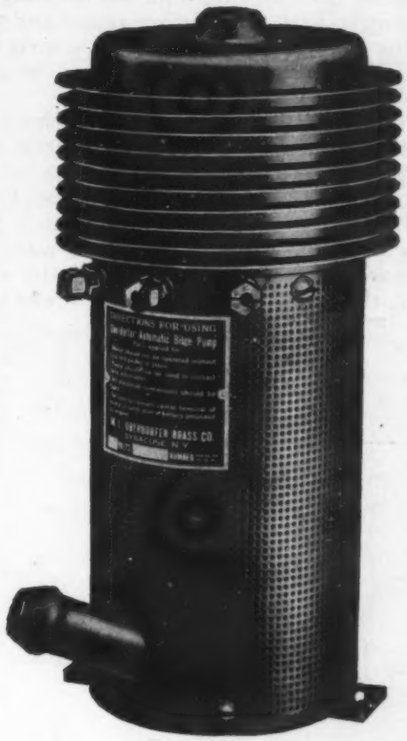
Another hour, and in the darkness our engines had to be slowed still more to prevent over-riding the anchor gear. An officer was stationed in the eyes with a flashlight on the chains that we might maneuver properly from the bridge. The gale by now was only blowing a mere 60 miles or so, and bets were being made as to who would see the first star.

At 10:30 the first star popped out, one quartermaster first class then at the wheel thereby losing one dollar Mex to the First Lieutenant, as the penalty for being slow sighted. Considering the fact he had then been at the wheel for over eight hours, I forgave him, however.

By midnight our engines were stopped and by the dim light of the moon, softly diffused through light clouds, the scene was vastly different from that of ten hours before. But, however restful moonlight might be, bunks were even more inviting, and the next I knew, squeegee handles were thumping on the deck over my head, and the sunlight streaming in my port. How wonderfully cheery sunlight can be!

No growls at the breakfast table that morning, but a chorus of "Did you see?" and "Do you remember?"

On the morning of the 17th we again had enough water to steam with, and "all hands up anchor." Gallantly we stuck our ship's nose through the rocky entrance, and adieu to Port Namki. Thirty-six hours later the hook dropped off Woosung, too late to go up the river to Shanghai that night, but never too late for a taxi, and the bumpy ride to town, over Chinese roads, with the ensuing joyful meetings in the Astor House lobby. If a sailor's life is no bed of roses, what must be that of his wife. Oh, well, it's all in the day's work. "Boy, catch six more cocktail, alle samee chop chop."



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With a capacity of 350 gallons per hour this pump will drain the hull of any cruiser or runabout without fuss or bother.

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Anyone acquainted with wiring details can install it in a short time.

See the complete line of Oberdorfer Pumps at the Motor Boat Show. Space 121, 3rd Floor.

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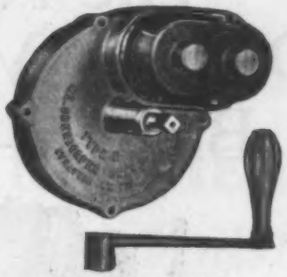

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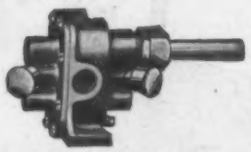

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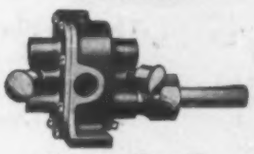

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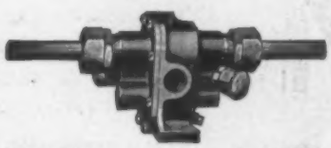

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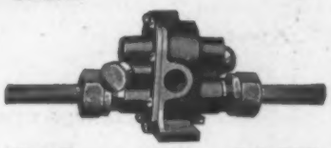

Type B
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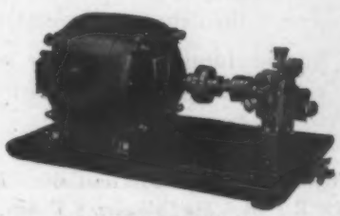
Code BYE

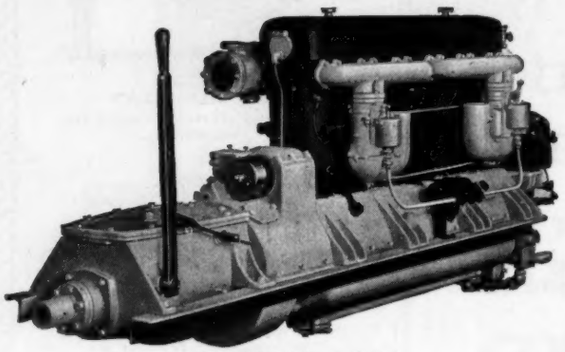
OBERDORFER CIRCULATING PUMPS
for Marine Motors. Gear type — bronze throughout — double bearing — fully lubricated



GIANT, LITTLE GIANT and JUNIOR
Motor driven all-purpose pumps. For galley and lavatory supply pumping, deck flushing, etc.

Oberdorfer Pumps

The New *Detroit Marine* Big Six–F6A



The Big Six–F6A

300 H.P. at 1700 R.P.M.

Six cylinders
6.325″ bore; 7.1″ stroke
Overall length, 94″
Width, 30″
Height, 43½″
Weight, 1750 lbs.

$4,000 f.o.b. Detroit

¶ The New Detroit Marine Big Six, F6A, has five outstanding features:

1—Norway iron water jacket—8 gauge, or approximately 3/16″ thick, replacing the 20 gauge steel jacket.

2—Cylinders guaranteed three years in salt water.

3—Valves under cover.

4—Enclosed starter and flywheel.

5—Cast alloy exhaust and intake manifolds, increasing resistance to salt water action.

¶ With these added features to an engine which has already established a record for reliable service the new price is remarkably low.

¶ Can be furnished with, or without reduction gears, and for single or multiple installation.

The Big Six—F6 *is also available. It develops 280 H.P. at 1650 R.P.M. Six Cylinders: 6.3″ bore, 7.1″ stroke. Overall length, 94″. Width, 30″. Height, 42½″. Weight, 1750 lbs. Price, $3250 f.o.b. Detroit.*

LITERATURE ON REQUEST

Detroit Marine-Aero Engine Co.
419 Connecticut Ave. Detroit

SEXTON MOTOR COMPANY, *Distributors*
136 Liberty Street, New York City

Ship Models

(*Continued from page 65*)

Far East gave me the necessary data for her deck layout. The *Thames* was rigged with the old-time parrel and yard tackles, to keep her lower yards to the mast — a rig that was superseded by the swivel-like cranse iron of more modern times.

When I was a schoolboy in the 'Eighties, my chum was a boy whose father was a sea captain. The little bark *Rebecca Caruano*, which he commanded, was in the sugar trade, running from New York to Matanzas, Cuba. She was only 467 tons, gross measurement, with a poop that extended across from rail to rail, the forward end forming a shelter to the door leading into the after cabin off the deck. Aft, the wheel was down on a lower deck,

Model of clipper ship *Sea Witch*.

almost like a cockpit. The sails of this model were carved out of wood, cut paper-thin, and they give a very realistic appearance of the bark under way.

These and many other models crowd one another in my study. A fleet of tiny ships, they are reminiscent of the days of wharves that were a forest of spars and a network of rigging.

A Sea Pilgrim

(*Continued from page 60*)

shallow draft boats have flown at the throats of their opponents and there have been dog fights.

Well, Brothers, listen! It's all settled. Sheath your fountain pens and put away your knuckle-dusters. A boat *will* steer herself for days and days *and* days on any point of sailing and a shallow draft craft *will* lie-to comfortably in a gale of wind and be as dry as a bone if it weren't for the rain and spindrift. The *Pilgrim* has *done* it.

On a wind, under full sail with her helm amidships, she likes her jib a trifle flat and her mainsheet checked a little. Like that she has sailed, more than once, from the southern to the northern limits of the N. E. Trade, falling off about a point every now and again and coming to gently until the luff of her mainsail begins to tremble. Then she pays off a little and goes on sailing a clean full until she feels it is time once more to test the wind's direction. Getting her to reach, it seems, is a very simple business. You trim her sails until she shows she is contented, when she settles down and steers herself within a point each side of her course until the wind changes. Running is not so easy — if you persist in sticking to the mainsail; but with her jib sheeted flat and her fore gaff square off she has run 1700 miles in a fortnight with no one touching a spoke, a sheet or a halliard. Running by herself, in fact, seems to be the *Pilgrim's* strong point. She will actually run by herself under her mainsail and

"New Jersey"

MARINE PAINTS *and* VARNISHES
Make a Better and More Lasting Finish

THERE is a "New Jersey" Marine Paint and Varnish made for every painting requirement on your boat, above and below the water line, inside and outside.

Since 1889 "New Jersey" Marine Paints and Varnishes have been used by boat owners and boat builders all over the world because they give a better and more lasting finish. "New Jersey" Marine Paints are made of selected pigments having extreme resistance to wear. Make your next paint job the most satisfactory you have ever had by using these superior protective coatings.

"NEW JERSEY" YACHT WHITE

The most practical finish for a yacht. Dries with a rich, velvety finish and is absolutely permanent. Can be washed and scrubbed.

"NEW JERSEY" COPPER PAINT

An absolute protection against barnacle teredos and vegetable growth. Very smooth and provides a fast racing bottom.

"NEW JERSEY" SHIP AND DECK PAINT

The most satisfactory paint for use on spars, decks, floors, stairs, top sides, and general woodwork. Used on canvas, wood or metal. Not affected by salt water.

"JERSEY" MIXED

A full gloss, pure linseed oil paint. Ideal for row boats, dinghies, outboard motor boats, etc. Excellent for yacht clubs and outbuildings. Protects as well as beautifies.

TOP and BOTTOM PAINT for EVERYTHING THAT FLOATS

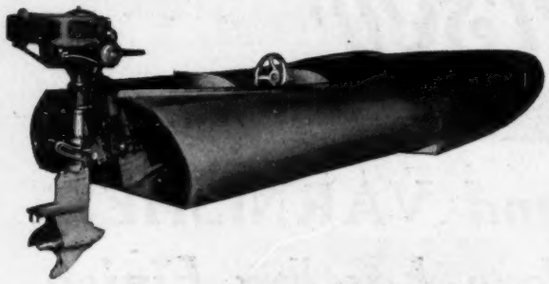
Sold by leading dealers. Write for booklet—"Davy Jones Locker," giving valuable information on painting, sent without cost to you.

See our exhibit, space 34, Third Floor, National Motor Boat Show, Grand Central Palace, New York, January 20th to 28th.

NEW JERSEY PAINT WORKS

HARRY LOUDERBOUGH, INC.

Wayne and Fremont Streets, Jersey City, New Jersey



THE SLIPPER

Introduces New Standards in Outboard Motor Boats

¶ The slipper is made of a metal alloy that combines extreme strength with lightness. It is very fast and safe. It cannot warp nor absorb water. Consequently, you obtain maximum racing speed at all times.

¶ The unusual strength of the alloy fabricated to our patent applied for design, makes them impervious even to the severest blows and abuse which usually disables an ordinary boat.

¶ A feature, new to outboard motor boats, is the collapsible fin controlled by a hand lever from within the boat. This assures safety to the fin and great ease in beaching the boat.

¶ The speed, sturdiness, ease of control and safety of the three slipper models has set an entirely new standard of engineering achievement in outboard motor boats.

¶ Read the specifications below, then write for details.

ALLOY BOAT CO.

190 Elk Street BUFFALO, N. Y.

SPECIFICATIONS:

Standard Slipper Outboard Motor Boat—*Single step hydro, 11' 6" by 48" beam, weight 90 pounds, self color finish. Wood flooring over triangular section alloy ribs. Collapsible fin controlled from operator's seat.* **Price $195.00 F. O. B. Buffalo, N. Y.**

Super Slipper Outboard Motor Boat—*Single step hydro, 11' 6" by 48" beam, self color finish, two removable bucket seats, 10" aluminum steering wheel, forward throttle control, mahogany floor covering triangular section alloy ribs. Collapsible fin controlled from operator's seat.* **Price $245.00 F. O. B. Buffalo, N. Y.**

Midget Slipper Outboard Motor Boat—*Single step hydro, 8' by 48" beam, weight 45 pounds, self color finish. Wood flooring over triangular section alloy ribs. Collapsible fin controlled from operator's seat.* **Price $98.00 F. O. B. Buffalo, N. Y.**

See Our Exhibit at

NEW YORK MOTOR BOAT SHOW

MEZZANINE FLOOR

jib, but she is better without that mainsail. Once she scudded under a two-reefed foresail before a heavy gale; but her Skipper admits that he thought it wise to stand by the wheel that time. He assures me, when he is making a passage, that the thought of touching the wheel never enters his head once the boat has been settled down on her course; but if there is a high and breaking sea trying to throw the boat's stern about he generally stands by — in case. During his last passage of 53 days he steered in all for 40 hours. This does not seem excessive!

So much for self-steering. If the *Pilgrim* gets caught in a gale of wind she takes it in two ways. She runs under a three reefed foresail if the gale is fair. If it is foul, or blowing very hard indeed, she lies-to under a close reefed mainsail only, and keeps bows on to everything without the aid of a sea anchor. During her passage across the Atlantic she was hove-to thus for five days, drifting in that time 300 miles. Owing to her light draft she drifts to leeward fast when hove-to. She has so little hold on the water that she gives way before the seas and escapes the shock of them; and in all her life she has never allowed a green sea to break aboard her. Riding thus she quietly rises and falls, bowing gravely to the big seas as she cleverly eludes them. And some there are who say a shoal draft boat will not heave to in a breeze. I was fool enough to say that myself — once!

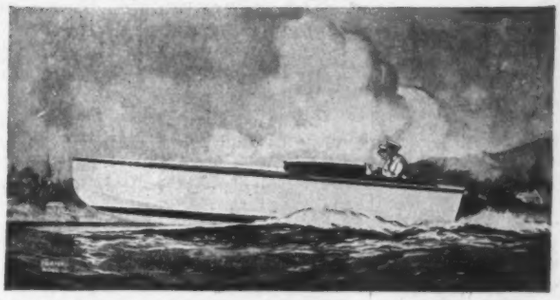
Captain Drake himself appears to take his passages very comfortably. He tells me he "sleeps every time he feels like it, and all night and every night besides." If the wind shifts while he is asleep the *Pilgrim* gives her sails a shake and calls her Skipper up on deck to attend to her. At 7 A.M., he rouses out and gives the ship a trim all 'round, and perhaps takes an observation. Then he has a good breakfast. He passes some of the morning amusing himself by cooking. He is a good cook and he bakes his own bread and makes delightful pies, puddings, sweets and pastry. In the afternoon he works out his position, maybe, or pokes his head out of the cabin hatch and admires things in general. At sunset he makes up his mind what the weather will do during the night, and if it looks threatening enough he may deign to take his big jib in. With that sail stowed he knows he is safe from trouble if, while he is asleep, he gets a sudden shift of wind or a squall hits him. Then he has supper, reads some more, and about 10 o'clock he turns in.

Captain Drake navigates, apparently, by instinct. He helps his instinct out, it is true, with a $5 watch, a hog-yoke and a Nautical Almanac; but as he invariably seems to "get there" I imagine this instinct of his must be a pretty sound navigational instrument. His lameness appears in no way to handicap him, so long as he is aboard his ship. "My limp just fits in fine with the schooner's motion," he says, "and the only time my leg goes back on me is when I'm fool enough to take it ashore."

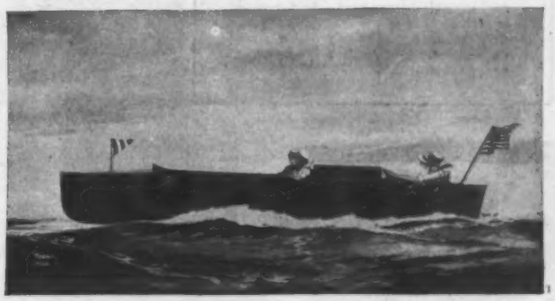
I have told you about Captain Drake and his very wonderful schooner because what he has done is of interest, and how he has done it is of value to all small-boat men. Also I owe him an apology for thinking he was a fraud. Further, there are still a number of persons — mere landsmen, mostly — who persist in regarding him as an impostor. So — let us give honor where honor is due, O Brother Sailors! Captain Drake has a whole lot of honor due to him; but so far, in spite of his achievements, he has merely collected a few sneers and jeers. This distresses me, because he is a real seaman, with a heart of gold, a silver tongue, nickel steel guts and navy-blue blood in his veins. Also he has delivered the goods and the best of us have a lot to learn from his methods.

It is easy to sneer at a man who calls himself "The Lone Sea Rover." But, it seems to me, any man who has roved the seas of this world all alone for 20 years and who is so roving still, well deserves that proud title.

Now it can be told!



13-foot Racing Model Speedcraft



15-foot De Luxe Runabout Model Speedcraft

SPEED-CRAFT

The Outboard Motorboat with the Hidden Motor

Created by scientific, experienced engineers and architects whose names are by-words of knowledge and conservatism. SPEED-CRAFT runabouts herald a new era in American small craft.

A few of the exclusive features found only in SPEEDCRAFT are:

- **Muffling of motor without loss of speed**
- **Freedom from vibration**
- **Locking of motor**
- **Protection of motor from rain and water at all times**
- **Positive control for spark and gas on dash**
- **Ignition shut-off instantly available on dash**
- **Logical position of motor for immediate attention when necessary**
- **Absolute safety from gasoline and oil drippings as both fall overboard and not in the bilge**

The Safest and Fastest Outboard Motorboat Ever Built— An Absolutely Standard Product

The economy and speed of the old outboard are maintained, while the objections to the old outboard are all abolished. These objections were:

- **Unreliability in wet weather**
- **Noise**
- **Nuisance of carrying motor to and fro**
- **Losing of motor**
- **Lack of control at high speed**
- **Unseaworthiness of poorly adapted hulls**
- **Awkward control at all times and discomfort to entire crew**

See this remarkable boat at the Motor Boat Show or write for descriptive literature

DEALERS—WHAT TERRITORY CAN YOU HANDLE?

Built by

SPEED-CRAFT INC.

E. WESTON FARMER, *GENERAL MANAGER*

85 CHAMBERS STREET NEW YORK CITY

This Habit Pays Dividends

Of those you see in a dentist's waiting room only a very few are there of their own accord. The others are seeking relief from pain. As a simple health measure, let your dentist prevent trouble. It is far easier than correction. See him at least once every six months.

Why 4 out of 5 are penalized

Look around you. The faces of men and women you pass on the street reveal the appalling truth. Neglect is taking its toll in health. And 4 out of 5 after forty, and thousands younger, are innocent victims of that grim foe—Pyorrhea.

At These Uneven Odds . . . Don't Gamble

What an insidious enemy it is! Its poison that forms at the base of teeth creeps through the body. Health is destroyed. Such troubles as rheumatism, stomach disorders, anemia and facial disfigurement often follow.

But two simple preventive measures will protect health. Let your dentist examine teeth and gums at least twice each year. And start using Forhan's for the Gums, regularly, morning and night.

This dentifrice, the formula of R. J. Forhan, D. D. S., for many years a Pyorrhea specialist, prevents Pyorrhea or checks its vicious course—if used regularly and in time. It firms gums; also it keeps teeth white and protects them against acids which cause decay!

You Can Be Sure Of This

Forhan's Antiseptic Refreshant does just what we promise for it. It safeguards mouth, nose and throat against oral infection and relieves unpleasant breath instead of concealing this embarrassing trouble behind a tell-tale odor. Thousands are now keeping breath sweet and fresh this sensible way. Try it. At all druggists, 35c and 60c.

So, to be on the safe side, start using Forhan's for the Gums, now. Teach your children this good habit.

Unlike ordinary tooth pastes, it contains Forhan's Pyorrhea Liquid used by dentists everywhere in the treatment of Pyorrhea. It is health insurance. All druggists, in tubes, 35c and 60c.

Formula of R. J. Forhan, D. D. S. Forhan Company, New York.

Forhan's *for the gums*

MORE THAN A TOOTH PASTE . . . IT CHECKS PYORRHEA

At the Motor Boat Show

The Walker Patent Logs

The yacht-owner who takes a pride in his navigating instruments and is careful in their selection, may be interested to learn something of the most recent types of Walker's Patent Ship's Logs.

These instruments, which under the name of their predecessor, Massey, were first introduced into the British Navy in 1805, consist of a propeller or rotator streamed in the water well clear of the vessel's wake and an integrating mechanism or distance recorder. In the earlier patent log the rotator and mechanism were both submerged, and while it was an advantage over the old Chip log and second glass, the whole outfit had to be hauled on board to take a reading. In later patterns the rotator alone was towed on the end of a length of log-line and the log register was mounted on the after rail. Today, on ocean-going ships and large yachts, the log readings are repeated either electrically or mechanically to the navigating bridge, within easy reach at all times of the officer of the watch.

The log which has been specially designed for motor boats, yachts, and small craft, is the "Excelsior" Yacht Log, and it is a well made and reliable little instrument. It is suitable alike for use at very slow speeds and at high speeds, and it is mounted on the rail by means of an outrigger attachment, or slung at any convenient position by means of a bail or sling. The Mark III type indicates up to 100 miles, with divisions to show quarters of a mile, and the dial and mechanism are enclosed by a water-tight hinged lid.

The various types of patent logs made by Messrs. Thomas Walker & Son, Ltd., Birmingham, England, will be exhibited at the Motor Boat Show at the stand (Booth 6) of the well known firm of nautical instrument makers, Messrs. Kelvin & Wilfrid O. White Co., 112 State Street, Boston.

Jardine Sea Skiff

A new 30-foot Speed Sea Skiff and a 20½-foot Baby Skiff will comprise the showing of the Edward Fell Jardine Co.

The new 30-footer, an extremely fast boat, is equipped with a Sterling Petrel 150-h.p. motor. There is provision for sleeping accommodations for two and for a gas capacity of 150 gallons. A model of the Baby Skiff was on display last year, but the present model shows some interesting changes.

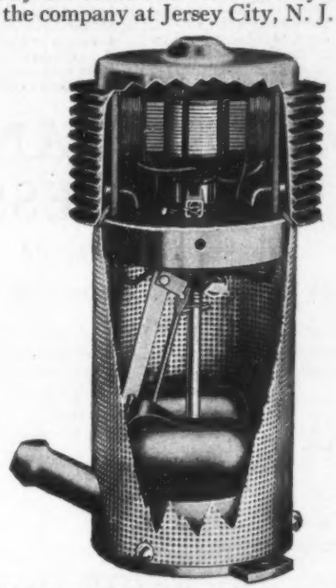
Berry Brothers Marine Finishes

The exhibit of Berry Brothers, of Detroit, contains a set of panels showing various lines of marine finishes, including Lionoil and Berryloid, products well known in the marine and aircraft industries. On display is a small outboard speed boat showing the various operations in finishing a hull with the Lionoil system.

(*Continued on page 119*)

New Jersey Paints for the Yacht

In space No. 34 on the third floor, the New Jersey Paint Works, of Jersey City, have a complete line of their paints and varnishes for marine use, including the well known anti-fouling bottom paint in a variety of colors. For years New Jersey Paints have been standard products in the marine field. In fact, this company has been painting paint since 1889 and their brands are favorably known to practically every boat builder in the United States. This year the New Jersey Paint Company is featuring in its literature and in its 1928 calendar the famous Baltimore clipper ship *Ann McKim*, the first American clipper in the China trade, and built in 1832. The beauty of the fine graceful lines of this vessel will make a strong appeal to the owners of modern yachts. Copies of this calendar may be had by the readers of YACHTING by writing the company at Jersey City, N. J.



Oberdorfer Automatic Bilge Pump.

The Oberdorfer Automatic Bilge Pump

A feature of the Motor Boat Show will be the new Model "B" Oberdorfer Automatic Bilge Pump which will be placed on public view for the first time in the booth of the M. L. Oberdorfer Brass Company. Much interest among builders and boat owners has been aroused by this new model because it is a solution of a perplexing problem — the disposal of bilge water which is bound to collect in the best of boats.

Installed beneath the flooring it keeps the boat pumped out at all times, whether anyone is on board or not. It is controlled by a dual switch located near the helm or at some other convenient point.

The motor is cooled by specially designed cooling fins and is capable of running for a long period of time, if necessary, without overheating. Oilless bearings assure exceptional service. The double float arrangement is a new feature.

Where electric current is not available on board a boat the Oberdorfer Hand Bilge Pump provides satisfactory equipment.

You may have your favorite shaving soap *but* —

USE BARBASOL ON ONE SIDE—YOUR FAVORITE SHAVING SOAP ON THE OTHER

BARBASOL
SKIN FRESHENER
A TONIC
STIMULANT
After Shaving —
After Bathing
Any Time
65c
At All Druggists

LET YOUR FACE DECIDE

You shave the same way every day. Same old soap. Same old brush. So much rub-in. So many towels. More soap . . . more brush . . . more lathering — *man*, it's a HABIT!

We'd like to change that habit. Not only to get a new customer, but to give you a better shave — *easier*, *faster*, *smoother* — with Barbasol.

So we make you this proposition:

Let Your Face Decide

Use your favorite shaving soap, just the way you use it every day — but *only on one-half* of your face.

Now wet down *the other side* of your face — with hot water or cold, only so it's wet. Then spread on a film of creamy, cooling Barbasol. No brush.

No lathering. No rub-in. Just shave! Like this:

1 — *Wash the face (but leave it wet)*
2 — *Spread on Barbasol (but don't rub in)*
3 — *Shave!*

We'll leave it to your face! Soap side's full of razor pull and smart and beard resistance. Barbasol side is all cool and soft — pliant with the natural oils left right in the skin. Younger looking, cheerier, cleaner!

Will *you* let your face decide? At all druggists 35c and 65c. A generous trial tube sent on receipt of your address and 10c.

The Barbasol Co.
Indianapolis,
Indiana

Barbasol
For Modern Shaving